Edward Appleton.
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PRACTICAL EDUCATION.

BY

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PREFACE.

We shall not imitate the invidious example of some authors, who think it necessary to destroy the edifices of others, in order to clear the way for their own. We have no peculiar system to support, and, consequently, we have no temptation to attack the theories of others; and we have chosen the title of "Practical Education," to point out that we rely entirely upon practice and experience.

To make any progress in the art of education, it must be patiently reduced to an experimental science: we are fully sensible of the extent and difficulty of this undertaking, and we have not the arrogance to imagine, that we have made any considerable progress in a work which the labours of many generations may, perhaps, be insufficient to complete; but we lay before the public the result of our experiments, and in many instances the experiments themselves. In pursuing this part of our plan, we have sometimes descended from that elevation of style which the reader might expect in a quarto volume; we have frequently been obliged to record facts concerning children which may seem trifling, and to enter into a minuteness of detail which may appear unnecessary. No anecdotes, however, have been admitted without due deliberation; nothing has been introduced to gratify the idle curiosity of others, or to indulge our own feelings of domestic partiality.

In what we have written upon the rudiments of science, we have pursued an opposite plan; so far from attempting to teach them in detail, we refer our readers to the excellent treatises on the different branches of science, and on the various faculties of the human mind, which

are to be found in every language. The chapters that we have introduced upon these subjects, are intended merely as specimens of the manner in which we think young children should be taught. We have found, from experience, that an early knowledge of the first principles of science may be given in conversation, and may be insensibly acquired from the usual incidents of life; if this knowledge be carefully associated with the technical terms which common use may preserve in the memory, much of the difficulty of subsequent instruction may be avoided.

The sketches we have hazarded upon these subjects, may to some appear too slight, and to others too abstruse and tedious. To those who have explored the vast mines of human knowledge, small specimens appear trifling and contemptible, while the less accustomed eye is somewhat dazzled and confused by the appearance even of a small collection: but to the most enlightened minds, new combinations may be suggested by a new arrangement of materials, and the curiosity and enthusiasm of the inexperienced may be awakened, and excited to accurate and laborious researches.

With respect to what is commonly called the education of the heart, we have endeavoured to suggest the easiest means of inducing useful and agreeable habits, well-regulated sympathy, and benevolent affections. A witty writer says, "Il est permis d'ennuyer en moralités d'ici jusqu'à Constantinople." Unwilling to avail ourselves of this permission, we have sedulously avoided declamation, and, wherever we have been obliged to repeat ancient maxims and common truths, we have at least thought it becoming to present them in a new dress.

On religion and politics we have been silent, because we have no ambition to gain partisans, or to make proselytes, and because we do not address ourselves exclusively to any sect or to any party. The scrutinizing eye of criticism, in looking over our table of contents, will also, probably, observe that there are no chapters on courage and chastity. To pretend to teach courage to Britons, would be as ridiculous as it is unnecessary; and,

except among those who are exposed to the contagion of foreign manners, we may boast of the superior delicacy of our fair countrywomen; a delicacy acquired from domestic example, and confirmed by public approbation. Our opinions concerning the female character and understanding, have been fully detailed in a former publication;* and, unwilling to fatigue by repetition, we have touched but slightly upon these subjects in our chapters on Temper, Female Accomplishments, Prudence, and Economy.

We have warned our readers not to expect from us any new theory of education; but they need not apprehend that we have written without method, or that we have thrown before them a heap of desultory remarks and experiments, which lead to no general conclusions, and which tend to the establishment of no useful principles. We assure them that we have worked upon a regular plan, and where we have failed of executing our design, it has not been for want of labour or attention. Convinced that it is the duty and the interest of all who write, to inquire what others have said and thought upon the subject of which they treat, we have examined attentively the works of others, that we might collect whatever knowledge they contain, and that we might neither arrogate inventions which do not belong to us, nor weary the public by repetition. Some useful and ingenious essays may probably have escaped our notice; but we flatter ourselves that our readers will not find reason to accuse us of negligence, as we have perused with diligent attention every work upon education that has obtained the sanction of time or of public approbation; and, though we have never bound ourselves to the letter, we hope that we have been faithful to the spirit, of their authors. Without encumbering ourselves with any part of their systems which has not been authorized by experience, we have steadily attempted immediately to apply to practice such of their ideas as we have thought useful; but while we have used the thoughts of others, we have been anx-

* Letters for Literary Ladies. Vide p. 185, vol. vii. Harper's Ed

ious to avoid mean plagiarism; and wherever we have borrowed, the debt has been carefully acknowledged.

The first hint of the chapter on Toys was received from Dr. Beddoes; the sketch of an introduction to chymistry for children was given to us by Mr. Lovell Edgeworth; and the rest of the work was resumed from a design formed and begun twenty years ago. When a book appears under the name of two authors, it is natural to inquire what share belongs to each of them. All that relates to the art of teaching to read in the chapter on Tasks, the chapters on Grammar and Classical Literature, Geography, Chronology, Arithmetic, Geometry, and Mechanics, were written by Mr. Edgeworth, and the rest of the book by Miss Edgeworth. She was encouraged and enabled to write upon this important subject, by having for many years before her eyes the conduct of a judicious mother in the education of a large family. The chapter on Obedience was written from Mrs. Edgeworth's notes, and was exemplified by her successful practice in the management of her children; the whole manuscript was submitted to her judgment, and she revised parts of it in the last stage of a fatal disease.

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PRACTICAL EDUCATION.

CHAPTER I.

TOYS.

"WHY don't you play with your playthings, my dear? I am sure that I have bought toys enough for you; why can't you divert yourself with them, instead of breaking them to pieces?" says a mother to her child, who stands idle and miserable, surrounded by disjointed dolls, maimed horses, coaches, and one-horse chairs without wheels, and a nameless wreck of gilded lumber.

A child in this situation is surely more to be pitied than blamed; for is it not vain to repeat, "Why don't you play with your playthings," unless they be such as he can play with, which is very seldom the case; and is it not rather unjust to be angry with him for breaking them to pieces, when he can by no other device render them subservient to his amusement? He breaks them, not from the love of mischief, but from the hatred of idleness; either he wishes to see what his playthings are made of, and how they are made; or, whether he can put them together again, if the parts be once separated. All this is perfectly innocent; and it is a pity that his love of knowledge and his spirit of activity should be repressed by the undistinguishing correction of a nursery-maid, or the unceasing reproof of a French governess.

The more natural vivacity and ingenuity young people possess, the less are they likely to be amused with the toys which are usually put into their hands. They require to have things which exercise their senses or their imagination, their imitative and inventive powers. The glaring colours, or the gilding of toys, may catch

the eye, and please for a few minutes; but unless some use can be made of them, they will, and ought to be soon discarded. A boy, who has the use of his limbs, and whose mind is untainted with prejudice, would, in all probability, prefer a substantial cart, in which he could carry weeds, earth, and stones, up and down hill, to the finest frail coach and six that ever came out of a toyshop: for what could he do with the coach after having admired and sucked the paint, but drag it cautiously along the carpet of a drawing-room, watching the wheels, which will not turn, and seeming to sympathize with the just terrors of the lady and gentleman within, who are certain of being overturned every five minutes? When he is tired of this, perhaps, he may set about to unharness horses which were never meant to be unharnessed; or to currycomb their woollen manes and tails, which usually come off during the first attempt.

That such toys are frail and useless, may, however, be considered as evils comparatively small: as long as the child has sense and courage to destroy the toys, there is no great harm done; but, in general, he is taught to set a value upon them totally independent of all ideas of utility, or of any regard to his own real feelings. Either he is conjured to take particular care of them, because they cost a great deal of money, or else he is taught to admire them as miniatures of some of the fine things on which fine people pride themselves: if no other bad consequence were to ensue, this single circumstance of his being guided in his choice by the opinion of others is dangerous. Instead of attending to his own sensations, and learning from his own experience, he acquires the habit of estimating his pleasures by the taste and judgment of those who happen to be near him.

"I liked the cart best," says the boy, "but mamma and everybody said that the coach was the prettiest; so I chose the coach."—Shall we wonder if the same principle afterward governs him in the choice of "the toys of age?"

A little girl, presiding at her baby tea-table, is pleased with the notion that she is like her mamma; and, before she can have any idea of the real pleasures of conversation and society, she is confirmed in the persuasion, that tattling and visiting are some of the most enviable privileges of grown people; a set of beings whom she

believes to be in possession of all the sweets of happiness.

Dolls, beside the prescriptive right of ancient usage, can boast of such an able champion in Rousseau, that it requires no common share of temerity to attack them. As far as they are the means of inspiring girls with a taste for neatness in dress, and with a desire to make those things for themselves for which women are usually dependant upon milliners, we must acknowledge their utility; but a watchful eye should be kept upon the child, to mark the first symptoms of a love of finery and fashion. It is a sensible remark of a late female writer, that while young people work, the mind will follow the hands; the thoughts are occupied with trifles, and the industry is stimulated by vanity.

Our objections to dolls are offered with great submission and due hesitation. With more confidence we may venture to attack baby-houses; an unfurnished baby-house might be a good toy, as it would employ little carpenters and seamstresses to fit it up; but a completely furnished baby-house proves as tiresome to a child, as a finished seat is to a young nobleman. After peeping, for in general only a peep can be had into each apartment, after being thoroughly satisfied that nothing is wanting, and that consequently there is nothing to be done, the young lady lays her doll upon the state bed, if the doll be not twice as large as the bed, and falls fast asleep in the midst of her felicity.

Before dolls, baby-houses, coaches, and cups and saucers, there comes a set of toys, which are made to imitate the actions of men and women, and the notes or noises of birds and beasts. Many of these are ingenious in their construction, and happy in their effect; but that effect, unfortunately, is transitory. When the wooden woman has churned her hour in her empty churn; when the stiff-backed man has hammered or sawed till his arms are broken, or till his employers are tired; when the gilt lamb has baaed, the obstinate pig squeaked, and the provoking cuckoo cried cuck-oo, till no one in the house can endure the noise; what remains to be done? —Wo betide the unlucky little philosopher, who should think of inquiring why the woman churned, or how the bird cried cuck-oo; for it is ten to one that in prosecuting such an inquiry, just when he is upon the eve of discovery, he snaps the wire, or perforates the bellows,

and there ensue "a deathlike silence and a dread repose."

The grief which is felt for spoiling a new plaything might be borne, if it were not increased, as it commonly is, by the reproaches of friends; much kind eloquence, upon these occasions, is frequently displayed, to bring the sufferer to a proper sense of his folly, till, in due time, the contrite corners of his mouth are drawn down, his wide eyes fill with tears, and, without knowing what he means, he promises never to be so silly any more. The future safety of his worthless playthings is thus purchased at the expense of his understanding, perhaps of his integrity; for children seldom scrupulously adhere to promises which they have made to escape from impending punishment.

We have ventured to object to some fashionable toys; we are bound at least to propose others in their place; and we shall take the matter up soberly from the nursery.

The first toys for infants should be merely such things as may be grasped without danger, and which might, by the difference of their sizes, invite comparison: round ivory or wooden sticks should be put into their little hands; by degrees they will learn to lift them to their mouths, and they will distinguish their sizes: square and circular bits of wood, balls, cubes, and triangles, with holes of different sizes made in them, to admit the sticks, should be their playthings. No greater apparatus is necessary for the amusement of the first months of an infant's life. To ease the pain which they feel from cutting teeth, infants generally carry to their mouths whatever they can lay their hands upon; but they soon learn to distinguish those bodies which relieve their pain from those which gratify their palate; and, if they are left to themselves, they will always choose what is painted in preference to every thing else; nor must we attribute the look of delight with which they seize toys that are painted red, merely to the pleasure which their eye takes in the bright colour, but to the love of the sweet taste which they suck from the paint. What injury may be done to the health by the quantity of lead which is thus swallowed, we will not pretend to determine; but we refer to a medical name of high authority,* whose cautions probably will

* Dr. Fothergill.

not be treated with neglect. To gratify the eye with glittering objects, if this be necessary, may be done with more safety by toys of tin and polished iron: a common steel button is a more desirable plaything to a young child than many expensive toys; a few such buttons tied together, so as to prevent any danger of their being swallowed, would continue for some time a source of amusement.

When a nurse wants to please or to pacify a child, she stuns its ear with a variety of noises, or dazzles its eye with glaring colours or stimulating light. The eye and the ear are thus fatigued without advantage, and the temper is hushed to a transient calm by expedients, which in time must lose their effect, and which can have no power over confirmed fretfulness. The pleasure of exercising their senses is in itself sufficient to children, without any factitious stimulus, which only exhausts their excitability, and renders them incapable of being amused by a variety of common objects, which would naturally be their entertainment. We do not here speak of the attempts made to sooth a child who is ill: "to charm the sense of pain," so far as it can be done by diverting the child's attention from his own sufferings to outward objects, is humane and reasonable, provided our compassion does not induce in the child's mind the expectation of continual attendance, and that impatience of temper which increases bodily suffering. It would be in vain to read lectures on philosophy to a nurse, or to expect stoicism from an infant; but, perhaps, where mothers pay attention themselves to their children, they will be able to prevent many of the consequences of vulgar prejudice and folly. A nurse's wish is to have as little trouble as possible with the child committed to her charge, and at the same time to flatter the mother, from whom she expects her reward. The appearance of extravagant fondness for the child, of incessant attention to its humour, and absurd submission to its caprices, she imagines to be the surest method of recommending herself to favour. She is not to be imposed upon by the faint and affected rebukes of the fond mother, who exclaims, "Oh, nurse, indeed you *do* spoil that child sadly!—Oh, nurse, upon my word, she governs you entirely!—Nurse, you must not let her have her own way always.—Never mind her crying, I beg, nurse."—Nurse smiles, sees that she has gained her

point, and promises what she knows it is not expected she should perform. Now if, on the contrary, she perceived that the mother was neither to be flattered nor pleased by these means, one motive for spoiling the child would immediately cease: another strong one would, it is true, still remain. A nurse wishes to save herself trouble, and she frequently consults her own convenience when she humours an infant. She hushes it to sleep, that she may leave it safely; she stops it from crying, that she may not hear an irritating noise, that she may relieve herself as soon as possible from the painful weakness of compassion, or that she may avoid the danger of being interrogated by the family as to the cause of the disturbance. It is less trouble to her to yield to caprice and ill-humour than to prevent or cure it, or at least she thinks it is so. In reality it is not; for a humoured child in time plagues its attendant infinitely more than it would have done with reasonable management. If it were possible to convince nurses of this, they would sacrifice perhaps the convenience of a moment to the peace of future hours; and they would not be eager to quell one storm at the hazard of being obliged to endure twenty more boisterous; the candle would then no more be thrust almost into the infant's eyes to make it take notice of the light through the mist of tears, the eternal bunch of keys would not dance and jingle at every peevish summons, nor would the roarings of passion be overpowered by insulting songs, or soothed by artful caresses; the child would then be caressed and amused when he looks smiling and good-humoured, and all parties would be much happier.

Practical education begins very early, even in the nursery. Without the mountebank pretence, that miracles can be performed by the turning of a straw, or the dictatorial anathematizing tone, which calls down vengeance upon those who do not follow to an iota the injunctions of a theorist, we may simply observe, that parents would save themselves a great deal of trouble, and their children some pain, if they would pay some attention to their early education. The temper acquires habits much earlier than is usually apprehended; the first impressions which infants receive, and the first habits which they learn from their nurses, influence the temper and disposition long after the slight causes which produced them are forgotten. More care and

judgment than usually fall to the share of a nurse are necessary, to cultivate the disposition which infants show to exercise their senses, so as neither to suffer them to become indolent and torpid from want of proper objects to occupy their attention, nor yet to exhaust their senses by continual excitation. By ill-timed restraints or injudicious incitements, the nurse frequently renders the child obstinate or passionate. An infant should never be interrupted in its operations; while it wishes to use its hands, we should not be impatient to make it walk; or when it is pacing, with all the attention to its centre of gravity that is exerted by a rope-dancer, suddenly arrest its progress, and insist upon its pronouncing the scanty vocabulary which we have compelled it to learn. When children are busily trying experiments upon objects within their reach, we should not, by way of saving them trouble, break the course of their ideas, and totally prevent them from acquiring knowledge by their own experience. When a foolish nurse sees a child attempting to reach or lift any thing, she runs immediately—"Oh, dear love, it can't do it, it can't!—I'll do it for it, so I will!" If the child be trying the difference between pushing and pulling, rolling or sliding, the powers of the wedge or the lever, the officious nurse hastens instantly to display her own knowledge of the mechanic powers: "Stay, love, stay; that is not the way to do it—I'll show it the right way—see here—look at me, love." Without interrupting the child in the moment of action, proper care might be previously taken to remove out of its way those things which can really hurt it; and a just degree of attention must be paid to its first experiments upon hard and heavy, and more especially upon sharp, brittle, and burning bodies; but this degree of care should not degenerate into cowardice; it is better that a child should tumble down or burn its fingers, than that it should not learn the use of its limbs and its senses. We should for another reason take care to put all dangerous things effectually out of the child's reach, instead of saying perpetually, "Take care, don't touch that!—don't do that!—let that alone!" The child, who scarcely understands the words, and not at all the reason of these prohibitions, is frightened by the tone and countenance with which they are uttered and accompanied, and he either becomes indolent or cunning; either he desists

from exertion, or seizes the moment to divert himself with forbidden objects, when the watchful eye that guards them is withdrawn. It is in vain to encompass the restless prisoner with a fortification of chairs, and to throw him an old almanac to tear to pieces, or an old pincushion to explore; the enterprising adventurer soon makes his escape from his barricado, leaves his goods behind him, and presently is again in what the nurse calls mischief.

Mischief is with nurses frequently only another name for any species of activity which they find troublesome; the love which children are supposed to have for putting things out of their places, is in reality the desire of seeing things in motion, or of putting things into different situations. They will like to put the furniture in a room in its proper place, and to arrange every thing in what we call order, if we can make these equally permanent sources of active amusement; but when things are once in their places, the child has nothing more to do; and the more quickly each chair arrives at its destined situation, the sooner comes the dreaded state of idleness and quiet.

A nursery, or a room in which young children are to live, should never have any furniture in it which they can spoil; as few things as possible should be left within their reach which they are not to touch, and at the same time they should be provided with the means of amusing themselves, not with painted or gilt toys, but with pieces of wood of various shapes and sizes, which they may build up and pull down, and put in a variety of different forms and positions; balls, pulleys, wheels, strings, and strong little carts, proportioned to their age, and to the things which they want to carry in them, should be their playthings.

Prints will be entertaining to children at a very early age; it would be endless to enumerate the uses that may be made of them; they teach accuracy of sight, they engage the attention, and employ the imagination. In 1777 we saw L——, a child of two years old, point out every piece of furniture in the French prints of Gil Blas: in the print of the Canon at Dinner, he distinguished the knives, forks, spoons, bottles, and every thing upon the table: the dog lying upon the mat, and the bunch of keys hanging at Jacintha's girdle; he told, with much readiness, the occupation of every figure in

the print, and could supply, from his imagination, what is supposed to be hidden by the foremost parts of all the objects. A child of four years old was asked what was meant by something that was very indistinctly represented as hanging round the arm of a figure in one of the prints of the London Cries. He said it was a glove; though it had as little resemblance to a glove as to a riband or a purse. When he was asked how he knew that it was a glove, he answered, "that it ought to be a glove, because the woman had one upon her other arm, and none upon that where the thing was hanging." Having seen the gown of a female figure in a print hanging obliquely, the same child said, "The wind blows that woman's gown back." We mention these little circumstances from real life, to show how early prints may be an amusement to children, and how quickly things unknown are learnt by the relations which they bear to what was known before. We should at the same time observe, that children are very apt to make strange mistakes and hasty conclusions, when they begin to reason from analogy. A child having asked what was meant by some marks in the forehead of an old man in a print, and having been told, upon some occasion, that old people were wiser than young ones, brought a print containing several figures to his mother, and told her that *one*, which he pointed to, was wiser than all the rest; upon inquiry, it was found that he had formed this notion from seeing that one figure was wrinkled, and that the others were not.

Prints for children should be chosen with great care; they should represent objects which are familiar; the resemblances should be accurate, and the manners should be attended to; or, at least, the general moral that is to be drawn from them. The attitude of Sephora, the boxing lady in Gil Blas, must appear unnatural to children who have not lived with termagant heroines. Perhaps the first ideas of grace, beauty, and propriety, are considerably influenced by the first pictures and prints which please children. Sir Joshua Reynolds tells us, that he took a child with him through a room full of pictures, and that the child stopped, with signs of aversion, whenever it came to any picture of a figure in a constrained attitude.

Children soon judge tolerably well of proportion in drawing, where they have been used to see the objects

which are represented: but we often give them prints of objects, and of animals especially, which they have never seen, and in which no sort of proportion is observed. The common prints of animals must give children false ideas. The mouse and the elephant are nearly of the same size, and the crocodile and whale fill the same space in the page. Painters, who put figures of men among their buildings, give the idea of the proportionate height immediately to the eye: this is, perhaps, the best scale we can adopt; in every print for children this should be attended to. Some idea of the relative sizes of the animals they see represented would then be given, and the imagination would not be filled with chimeras.

After having been accustomed to examine prints, and to trace their resemblance to real objects, children will probably wish to try their own power of imitation. At this moment no toy which we could invent for them, would give them half so much pleasure as a pencil. If we put a pencil into their hands, even before they are able to do any thing with it but make random marks all over a sheet of paper, it will long continue a real amusement and occupation. No matter how rude their first attempts at imitation may be; if the attention of children be occupied, our point is gained. Girls have generally one advantage at this age over boys, in the exclusive possession of the scissors: how many camels, and elephants with amazing trunks, are cut out by the industrious scissors of a busy, and therefore happy little girl, during a winter evening, which passes so heavily, and appears so immeasurably long, to the idle.

Modelling in clay or wax might probably be a useful amusement about this age, if the materials were so prepared that the children could avoid being every moment troublesome to others while they are at work. The making of baskets, and the weaving of sash-line, might perhaps be employment for children; with proper preparations, they might at least be occupied with these things; much, perhaps, might not be produced by their labours, but it is a great deal to give early habits of industry. Let us do what we will, every person who has ever had any experience upon the subject, must know that is scarcely possible to provide sufficient and suitable occupations for young children: this is one of the first difficulties in education. Those who have never

tried the experiment, are astonished to find it such a difficult and laborious business as it really is, to find employments for children from three to six years old. It is perhaps better that our pupils should be entirely idle, than that they should be half employed. "My dear, have you nothing to do?" should be spoken in sorrow rather than in anger. When they see other people employed and happy, children feel mortified and miserable to have nothing to do. Count Rumford's was an excellent scheme for exciting sympathetic industry among the children of the poor at Munich; in the large hall, where the elder children were busy in spinning, there was a range of seats for the younger children, who were not yet permitted to work; these being compelled to sit idle, and to see the busy multitude, grew extremely uneasy in their own situation, and became very anxious to be employed. We need not use any compulsion or any artifice; parents in every family, we suppose, who think of educating their own children, are employed some hours in the day in reading, writing, business, or conversation; during these hours, children will naturally feel the want of occupation, and will, from sympathy, from ambition, and from impatience of insupportable ennui, desire with anxious faces "to have something to do." Instead of loading them with playthings, by way of relieving their misery, we should honestly tell them, if that be the truth, "I am sorry I cannot find any thing for you to do at present. I hope you will soon be able to employ yourself. What a happy thing it will be for you to be able, by-and-by, to read, and write, and draw; then you will never be forced to sit idle."

The pains of idleness stimulate children to industry, if they are from time to time properly contrasted with the pleasures of occupation. We should associate cheerfulness, and praise, and looks of approbation, with industry; and whenever young people invent employments for themselves, they should be assisted as much as possible, and encouraged. At that age when they are apt to grow tired in half an hour of their playthings, we had better give them playthings only for a very short time, at intervals in the day; and, instead of waiting till they are tired, we should take the things away before they are weary of them. Nor should we discourage the inquisitive genius from examining into

the structure of their toys, whatever they may be. The same ingenious and active dispositions which prompt these inquiries, will secure children from all those numerous temptations to do mischief, to which the idle are exposed. Ingenious children are pleased with contrivances which answer the purposes for which they are intended; and they feel sincere regret whenever these are injured or destroyed: this we mention as a further comfort and security for parents, who, in the company of young mechanics, are apt to tremble for their furniture. Children who observe, and who begin to amuse themselves with *thought*, are not so actively hostile in their attacks upon inanimate objects. We were once present at the dissection of a wooden cuckoo, which was attended with extreme pleasure by a large family of children; and it was not one of the children who broke the precious toy, but it was the father who took it to pieces. Nor was it the destruction of the plaything which entertained the company, but the sight of the manner in which it was constructed. Many guesses were made by all the spectators about the internal structure of the cuckoo, and the astonishment of the company was universal, when the bellows were cut open and the simple contrivance was revealed to view; probably, more was learned from this cuckoo, than was ever learned from any cuckoo before. So far from being indifferent to the destruction of this plaything, H——, the little girl of four years old to whom it belonged, remembered, several months afterward, to remind her father of his promise to repair the mischief he had done.

"Several toys which are made at present, are calculated to give pleasure merely by exciting surprise; and of course give children's minds such a tone, that they are afterward too fond of *similar useless baubles*."* This species of delight is soon over, and is succeeded by a desire to triumph in the ignorance, the credulity, or the cowardice, of their companions. Hence that propensity to play tricks, which is often injudiciously encouraged by the smiles of parents, who are apt to mistake it for a proof of wit and vivacity. They forget, that "gentle dulness ever lov'd a joke;" and that even wit and vivacity, if they become troublesome and mischievous, will be feared and shunned. Many juggling tricks and puz-

* Dr. Beddoes.

zles are highly ingenious; and, as far as they can exercise the invention or the patience of young people, they are useful. Care, however, should be taken to separate the ideas of deceit and of ingenuity, and to prevent children from glorying in the mere possession of a secret.

Toys which afford trials of dexterity and activity, such as tops, kites, hoops, balls, battledoors and shuttlecocks, ninepins, and cup-and-ball, are excellent; and we see that they are consequently great and lasting favourites with children; their senses, their understanding, and their passions, are all agreeably interested and exercised by these amusements. They emulate each other; but, as some will probably excel at one game, and some at another, this emulation will not degenerate into envy. There is more danger that this hateful passion should be created in the minds of young competitors at those games, where it is supposed that some *knack* or *mystery* is to be learned before they can be played with success. Whenever children play at such games, we should point out to them how and why it is that they succeed or fail; we may show them, that in reality, there is no *knack* or *mystery* in any thing, but that from certain causes certain effects will follow; that, after trying a number of experiments, the circumstances essential to success may be discovered; and that all the ease and dexterity which we often attribute to the power of natural genius, is simply the consequence of practice and industry. This sober lesson may be taught to children without putting it into grave words or formal precepts. A gentleman once astonished a family of children by his dexterity in playing at bilboquet; he caught the ball nine or ten times successively with great rapidity upon the spike: this success appeared miraculous; and the father, who observed that it had made a great impression upon the little spectators, took that opportunity to show the use of spinning the ball, to make the hole at the bottom ascend in a proper direction. The nature of centrifugal motion, and its effect in preserving the *parallelism* of *motion*, if we may be allowed the expression, were explained, not at once, but at different intervals, to the young audience. Only as much was explained at a time as the children could understand, without fatiguing their attention; and the abstruse subject was made familiar by the mode of illustration that was adopted.

It is surprising how much children may learn from their playthings, when they are judiciously chosen, and when the habit of reflection and observation is associated with the ideas of amusement and happiness. A little boy of nine years old, who had had a hoop to play with, asked why a hoop, or a plate, if rolled upon its edge, keeps up as long as it rolls, but falls as soon as it stops, and will not stand if you try to make it stand still upon its edge? Was not the boy's understanding as well employed while he was thinking of this phenomenon, which he observed while he was beating his hoop, as it could possibly have been by the most learned preceptor?

When a pedantic schoolmaster sees a boy eagerly watching a paper kite, he observes, "What a pity it is that children cannot be made to mind their grammar as well as their kites!" And he adds, perhaps, some peevish ejaculation on the natural idleness of boys, and that pernicious love of play against which he is doomed to wage perpetual war. A man of sense will see the same thing with a different eye; in this pernicious love of play he will discern the symptoms of a love of science, and, instead of deploring the natural idleness of children, he will admire the activity which they display in the pursuit of knowledge. He will feel that it is his business to direct this activity, to furnish his pupil with materials for fresh combinations, to put him or to let him put himself, in situations where he can make useful observations, and acquire that experience which cannot be bought, and which no masters can communicate.

It will not be beneath the dignity of a philosophic tutor to consider the different effects which the most common plays of children have upon the habits of the understanding and temper. Whoever has watched children putting together a dissected map, must have been amused with the trial between Wit and Judgment. The child, who quickly perceives resemblances, catches instantly at the first bit of the wooden map that has a single hook or hollow that seems likely to answer his purpose; he makes, perhaps, twenty different trials before he hits upon the right; while the wary youth, who has been accustomed to observe differences, cautiously examines with his eye the whole outline before his hand begins to move; and, having exactly compared the two indentures, he joins them with sober confidence, more proud

of never disgracing his judgment by a fruitless attempt, than ambitious of rapid success. He is slow, but sure, and wins the day.

There are some plays which require presence of mind, and which demand immediate attention to what is actually going forward, in which children, capable of the greatest degree of abstract attention, are most apt to be defective. They have many ideas, but none of them ready; and their knowledge is useless, because it is recollected a moment too late. Could we, in suitably dignified language, describe the game of "birds, beasts, and fishes," we should venture to prescribe it as no very painful remedy for these absent and abstracted personages. When the handkerchief or the ball is thrown, and when his bird's name is called for, the absent little philosopher is obliged to collect his scattered thoughts instantaneously, or else he exposes himself to the ridicule of naming, perhaps, a fish or a beast, or any bird but the right. To those children, who, on the contrary, are not sufficiently apt to abstract their attention, and who are what Bacon calls "birdwitted," we should recommend a solitary-board. At the solitary-board, they must withdraw their thoughts from all external objects, hear nothing that is said, and fix their attention solely upon the figure and the pegs before them, else they will never succeed; and, if they make one error in their calculations, they lose all their labour. Those who are precipitate, and not sufficiently attentive to the consequences of their own actions, may receive many salutary lessons at the draught or chess-board—happy, if they can learn prudence and foresight by frequently losing the battle.

We are not quite so absurd as to imagine, that any great or permanent effects can be produced by such slight causes as a game at draughts, or at a solitary-board; but the combination of a number of apparent trifles is not to be neglected in education.

We have never yet mentioned what will probably first occur to those who would invent employments for children. We have never yet mentioned a garden; we have never mentioned those great delights to children, a spade, a hoe, a rake, and a wheelbarrow. We hold all these in proper respect; but we did not sooner mention them, because, if introduced too early, they are useless. We must not expect that a boy six or seven

years old, can find, for any length of time, sufficient daily occupation in a garden: he has not strength for hard labour; he can dig soft earth; he can weed groundsel, and other weeds, which take no deep root in the earth; but after he has weeded his little garden, and sowed his seeds, there must be a suspension of his labours. Frequently children, for want of something to do, when they have sowed flower-seeds in their crooked beds, dig up the hopes of the year to make a new walk, or to sink a well in their garden. We mention these things, that parents may not be disappointed, or expect more from the occupation of a garden than it can, at a very early age, afford. A garden is an excellent resource for children, but they should have a variety of other occupations: rainy days will come, and frost and snow, and then children must be occupied within doors. We immediately think of a little set of carpenter's tools, to supply them with active amusement. Boys will probably be more inclined to attempt making models than drawings, of the furniture which appears to be the most easy to imitate; they will imagine that, if they had but tools, they could make boxes, and desks, and beds, and chests of drawers, and tables and chairs innumerable. But, alas! these fond imaginations are too soon dissipated. Suppose a boy of seven years old to be provided with a small set of carpenters' tools; his father thinks, perhaps, that he has made him completely happy; but a week afterward the father finds dreadful marks of the file and saw upon his mahogany tables: the use of these tools is immediately interdicted until a bench shall be procured. Week after week passes away, till at length the frequently reiterated speech of "Papa, you bid me put you in mind about my bench," has its effect, and the bench appears. Now the young carpenter thinks he is quite set up in the world, and projects carts and boxes, and reading-desks and writing-desks for himself and for his sisters, if he have any; but when he comes to the execution of his plans, what new difficulties, what new wants arise—the wood is too thick or too thin; it splits, or it cannot be cut with a knife; wire, nails, glue, and above all, the means of heating the glue, are wanting. At last some frail machine, stuck together with pegs or pins, is produced, and the workman is usually either too much ridiculed or too much admired. The step from pegging to mortising is a very difficult step, and the want of a

mortising-chisel is insuperable: one tool is called upon to do the duty of another, and the pricker comes to an untimely end in doing the hard duty of the punch; the saw wants setting; the plane will plane no longer; and the mallet must be used instead of the hammer, because the hammer makes so much noise, that the ladies of the family have voted for its being locked up. To all these various evils the child submits in despair; and finding, after many fruitless exertions, that he cannot make any of the fine things he had projected, he throws aside his tools, and is deterred by these disappointments from future industry and ingenuity. Such are the consequences of putting excellent tools into the hands of children before they can possibly use them: but the tools which are useless at seven years old, will be a most valuable present at eleven or twelve, and for this age it will be prudent to reserve them. A rational toyshop should be provided with all manner of carpenters' tools, with wood properly prepared for the young workman, and with screws, nails, glue, emery-paper, and a variety of articles which it would be tedious to enumerate; but which, if parents could readily meet with in a convenient assemblage, they would willingly purchase for their children. The trouble of hunting through a number of different shops, prevents them at present from purchasing such things; besides, they may not perhaps be sufficiently good carpenters to know distinctly every thing that is necessary for a young workman.

Card, pasteboard, substantial but not sharp-pointed scissors, wire, gum and wax, may, in some degree, supply the want of carpenters' tools at that early age when we have observed that the saw and plane are useless. Models of common furniture should be made as toys, which should take to pieces, so that all their parts, and the manner in which they are put together, might be seen distinctly; the name of the different parts should be written* or stamped upon them: by these means the names will be associated with realities; children will retain them in their memory, and they will neither learn by rote technical terms, nor will they be retarded in their progress in mechanical invention by the want of language. Before young people can use tools, these models will amuse and exercise their attention. From

* We are indebted to Dr. Beddoes for this idea.

models of furniture we may go on to models of architecture; pillars of different orders, the roofs of houses, the manner of slating and tiling, &c. Then we may proceed to models of machines, choosing at first such as can be immediately useful to children in their own amusements, such as wheelbarrows, carts, cranes, scales, steelyards, jacks, and pumps, which children ever view with eager eyes.

From simple, it will be easy to proceed gradually to models of more complicated machinery: it would be tiresome to give a list of these; models of instruments used by manufacturers and artists should be seen; many of these are extremely ingenious; spinning-wheels, looms, papermills, windmills, watermills, might with great advantage be shown in miniature to children.

The distracting noise and bustle, the multitude of objects which all claim the attention at once, prevent young people from understanding much of what they see, when they are first taken to look at large manufactories. If they had previously acquired some general idea of the whole, and some particular knowledge of the different parts, they would not stare when they get into these places; they would not "stare round, see nothing, and come home content," bewildered by the sight of cogs and wheels; and the explanations of the workmen would not be all jargon to them; they would understand some of the technical terms, which so much alarm the intellects of those who hear them for the first time.

We may exercise the ingenuity and judgment of children by these models of machines, by showing them first the thing to be done, and exciting them to invent the best means of doing it; afterward, give the models as the reward for their ingenuity, and let them compare their own inventions with the contrivances actually in use among artificers; by these means, young people may be led to compare a variety of different contrivances; they will discern what parts of a machine are superfluous, and what inadequate, and they will class particular observations gradually under general principles. It may be thought, that this will tend to give children only mechanical invention; or we should call it, perhaps, the invention of machines: and those who do not require this particular talent, will despise it as unnecessary in what are called the liberal professions. Without attempting to compare the value of different

intellectual talents, we may observe, that they are all in some measure dependant upon each other. Upon this subject we shall enlarge more fully, when we come to consider the method of cultivating the memory and invention.

Chymical toys will be more difficult to manage than mechanical, because the materials requisite to try many chymical experiments are such as cannot safely be put into the hands of children. But a list of experiments, and of the things necessary to try them, might easily be drawn out by a chymist who would condescend to such a task; and if these materials, with proper directions, were to be found at a rational toyshop, parents would not be afraid of burning or poisoning their children in the first chymical lessons. In some families, girls are taught the confectionary art; might not this be advantageously connected with some knowledge of chymistry, and might not they be better taught than by Mrs. Raffeld or Mrs. Glass?* Every culinary operation may be performed as an art, probably, as well by a cook as by a chymist; but, if the chymist did not assist the cook now and then with a little science, epicures would have great reason for lamentation. We do not, by any means, advise that girls should be instructed in confectionary arts, at the hazard of their keeping company with servants. If they learn any thing of this sort, there will be many precautions necessary to separate them from servants: we do not advise that these hazards should be run; but if girls learn confectionary, let them learn the principles of chymistry, which may assist in this art.†

Children are very fond of attempting experiments in dying, and are very curious about vegetable dies; but they can seldom proceed for want of the means of boiling, evaporating, distilling, and subliming. Small stills, and small tea-kettles and lamps, would be extremely useful to them: these might be used in the room with the children's parents, which would prevent all danger: they should continue to be the property of the parents, and should be produced only when they are wanted. No great apparatus is necessary for showing children the first

* We do not mean to do injustice to Mrs. Raffeld's professional skill.

† V. Diderot's ingenious preface to "Chymie de gout et de l'odorat."

simple operations in chymistry; such as evaporation, crystallization, calcination, detonation, effervescence, and saturation. Water and fire, salt and sugar, lime and vinegar, are not very difficult to be procured; and a wine-glass is to be found in every house. The difference between an acid and alkali should be early taught to children; many grown people begin to learn chymistry, without distinctly knowing what is meant by those terms.

In the selection of chymical experiments for young people, it will be best to avoid such as have the appearance of jugglers' tricks, as it is not our purpose to excite the amazement of children for the moment, but to give them a permanent taste for science. In a well-known book, called "Hooper's *Rational Recreations*," there are many ingenious experiments; but through the whole work there is such a want of an enlarged mind, and such a love of magic and deception appears, as must render it not only useless, but unsafe, for young people, in its present state. Perhaps a selection might be made from it in which these defects might be avoided: such titles as "*The real apparition; the confederate counters; the five beatitudes;* and *the book of fate*," may be changed for others more *rational*. Receipts for "*Changing winter into spring*," for making "*Self-raising pyramids, enchanted mirrors*, and *intelligent flies*," might be omitted, or explained to advantage. Recreation the 5th, "To tell by the dial of a watch at what hour any person intends to rise;" Recreation the 12th, "To produce the appearance of a phantom on a pedestal placed on the middle of a table;" and Recreation the 30th, "To write several letters which contain no meaning, upon cards; to make them, after they have been twice shuffled, give an answer to a question that shall be proposed;" as, for example, "What is love?" scarcely come under the denomination of Rational Recreations, nor will they much conduce to the end proposed in the introduction to Hooper's work; that is to say, in his own words, "To enlarge and fortify the mind of man, that he may advance with tranquil steps through the flowery paths of investigation, till arriving at some noble eminence, he beholds, with awful astonishment, the boundless regions of science, and becomes animated to attain a still more lofty station, while his heart is incessantly wrapped with joys of which the grovelling herd have no conception."

Even in those chymical experiments in this book, which are really ingenious and entertaining, we should avoid giving the old absurd titles, which can only confuse the understanding and spoil the taste of children. The tree of Diana, and "Philosophic wool," are of this species. It is not necessary to make every thing marvellous and magical to fix the attention of young people: if they are properly educated, they will find more amusement in discovering, or in searching for the cause of the effects which they see, than in a blind admiration of the juggler's tricks.

In the papers of the Manchester Society, in Franklin's letters, in Priestley's and Percival's works, there may be found a variety of simple experiments which require no great apparatus, and which will at once amuse and instruct. All the papers of the Manchester Society, upon the repulsion and attraction of oil and water, are particularly suited to children, because they state a variety of simple facts; the mind is led to reason upon them, and induced to judge of the different conclusions which are drawn from them by different people. The name of Dr. Percival or Dr. Wall will have no weight with children; they will compare only the reasons and experiments. Oil and water, a cork, a needle, a plate, and a glass tumbler, are all the things necessary for these experiments. Mr. Henry's experiments upon the influence that fixed air has on vegetation, and several of Reaumur's experiments, mentioned in the memoirs of the French Academy of Sciences, are calculated to please young people much, and can be repeated without expense or difficulty.

To those who acquire habits of observation, every thing that is to be seen or heard becomes a source of amusement. Natural history interests children at an early age; but their curiosity and activity are often repressed and restrained by the ignorance or indolence of their tutors. The most inquisitive genius grows tired of repeating, "Pray look at this—What is it? What can the use of this be?" when the constant answer is, "Oh! it's nothing worth looking at, throw it away, it will dirty the house." Those who have attended to the ways of children and parents well know that there are many little inconveniences attending their amusements, which the sublime eye of the theorist in education overlooks, which, nevertheless, are essential to practical

success. "It will dirty the house," puts a stop to many of the operations of the young philosopher; nor is it reasonable that his experiments should interfere with the necessary regularity of a well-ordered family. But most well-ordered families allow their horses and their dogs to have houses to themselves; cannot one room be allotted to the children of the family? If they are to learn chymistry, mineralogy, botany, or mechanics; if they are to take sufficient bodily exercise without tormenting the whole family with noise, a room should be provided for them. We mention exercise and noise in particular, because we think they will, to many, appear of the most importance.

To direct children in their choice of fossils, and to give them some idea of the general arrangements of mineralogy, toyshops should be provided with specimens of ores, &c. properly labelled and arranged in drawers, so that they may be kept in order. Children should have empty shelves in their cabinets, to be filled with their own collections; they will then know how to direct their researches, and how to dispose of their treasures. If they have proper places to keep things in, they will acquire a taste for order by the best means, by feeling the use of it: to either sex, this taste will be highly advantageous. Children who are active and industrious, and who have a taste for natural history, often collect, with much enthusiasm, a variety of pebbles and common stones, which they value as great curiosities, till some surly mineralogist happens to see them, and condemns them all with one supercilious "pshaw!" or else a journey is to be taken, and there is no way in making up the heterogeneous, cumbersome collection, which must, of course, be abandoned. Nay, if no journey is to be taken, a visiter, perhaps, comes unexpectedly; the little naturalist's apartment must be vacated on a few minutes' notice, and the labour of years falls a sacrifice, in an instant, to the housemaid's undistinguishing broom.

It may seem trifling to insist so much upon such slight things; but, in fact, nothing can be done in education without attention to minute circumstances. Many who have genius to sketch large plans, have seldom patience to attend to the detail which is necessary for their accomplishment. This is a useful, and, therefore, no humiliating drudgery.

With the little cabinets which we have mentioned, should be sold cheap microscopes, which will unfold a world of new delights to children; and it is very probable that children will not only be entertained with looking at objects through a microscope, but they will consider the nature of the magnifying glass. They should not be rebuffed with the answer, "Oh, it's only a common magnifying glass," but they should be encouraged in their laudable curiosity; they may easily be led to try slight experiments in optics, which will, at least, give the habits of observation and attention. In Dr. Priestley's History of Vision, many experiments may be found which are not above the comprehension of children of ten or eleven years old; we do not imagine that any science can be taught by desultory experiments, but we think that a taste for science may early be given by making it entertaining, and by exciting young people to exercise their reasoning and inventive faculties upon every object which surrounds them. We may point out that great discoveries have often been made by attention to slight circumstances. The blowing of soap-bubbles, as it was first performed as a scientific experiment by the celebrated Dr. Hook, before the Royal Society, makes a conspicuous figure in Dr. Priestley's chapter on the reflection of light; this may be read to children, and they will be pleased when they observe that what at first appeared only a trifling amusement, has occupied the understanding, and excited the admiration, of some great philosophers.

Every child observes the colours which are to be seen in panes of glass windows: in Priestley's History of Vision, there are some experiments of Hook's and Lord Brereton's upon these colours, which may be selected. Buffon's observations upon blue and green shadows are to be found in the same work, and they are very entertaining. In Dr. Franklin's letters there are numerous experiments, which are particularly suited to young people; especially, as in every instance he speaks with that candour and openness to conviction, and with that patient desire to discover truth, which we should wish our pupils to admire and imitate.

The history of the experiments which have been tried in the progress of any science, and of the manner in which observations of minute facts have led to great discoveries, will be useful to the understanding, and will

gradually make the mind expert in that mental algebra, on which both reasoning and invention (which is, perhaps, only a more rapid species of reasoning) depend. In drawing out a list of experiments for children, it will, therefore, be advantageous to place them in that order which will best exhibit their relative connexion; and, instead of showing young people the steps of a discovery, we should frequently pause to try if they can invent. In this, our pupils will succeed often beyond our expectations; and, whether it be in mechanics, chymistry, geometry, or in the arts, the same course of education will be found to have the same advantages. When the powers of reason have been cultivated, and the inventive faculty exercised; when general habits of voluntary exertion and patient perseverance have been acquired, it will be easy, either for the pupil himself, or for his friends, to direct his abilities to whatever is necessary for his happiness. We do not use the phrase, *success in the world*, because, if it conveys any distinct ideas, it implies some which are, perhaps, inconsistent with real happiness.

While our pupils occupy and amuse themselves with observation, experiment, and invention, we must take care that they have a sufficient variety of manual and bodily exercises. A turning-lathe and a work-bench will afford them constant active employment; and when young people can invent, they feel great pleasure in the execution of their own plans. We do not speak from vague theory; we have seen the daily pleasures of the work-bench, and the persevering eagerness with which young people work in wood, and brass, and iron, when tools are put into their hands at a proper age, and when their understanding has been previously taught the simple principles of mechanics. It is not to be expected that any exhortations we could use could prevail upon a father, who happens to have no taste for mechanics or for chymistry, to spend any of his time in his children's laboratory, or at their work-bench; but in his choice of a tutor, he may perhaps supply his own defects; and he will consider, that even by interesting himself in the daily occupations of his children, he will do more in the advancement of their education than can be done by paying money to a hundred masters.

We do not mean to confine young people to the laboratory or the work-bench for exercise; the more

varied exercise is, the better. Upon this subject we shall speak more fully hereafter: we have in general recommended all trials of address and dexterity, except games of chance, which we think should be avoided, as they tend to give a taste for gambling; a passion, which has been the ruin of so many young men of promising talents, of so many once happy families, that every parent will think it well worth his while to attend to the smallest circumstances in education, which can prevent its seizing hold of the minds of his children.

In children, as in men, a taste for gaming arises from the want of better occupation, or of proper emotion to relieve them from the pains and penalties of idleness; both the vain and indolent are prone to this taste, from different causes. The idea of personal merit is insensibly connected with what is called *good luck*, and before avarice absorbs every other feeling, vanity forms no inconsiderable part of the charm which fixes such numbers to the gaming-table. Indolent persons are fond of games of chance, because they feel themselves roused agreeably from their habitual state of apathy, or because they perceive, that, at these contests, without any menial exertion, they are equal, perhaps superior, to their competitors.

Happy they who have early been inspired with a taste for science and literature! They will have a constant succession of agreeable ideas; they will find endless variety in the commonest objects which surround them; and feeling that every day of their lives they have sufficient amusement, they will require no extraordinary excitations, no holyday pleasures. They who have learned, from their own experience, a just confidence in their own powers; they who have tasted the delights of well-earned praise, will not lightly trust to *chance* for the increase of self-approbation; nor will those pursue, with too much eagerness, the precarious triumphs of fortune, who know, that in their usual pursuits, it is in their own power to command success proportioned to their exertions. Perhaps it may be thought, that we should have deferred our eulogium upon literature till we came to speak of Tasks; but if there usually appears but little connexion in a child's mind between books and toys, this must be attributed to his having had bad books and bad toys. In the hands of a judicious instructer, no means are too small

to be useful; every thing is made conducive to his purposes; and instead of useless baubles, his pupils will be provided with playthings which may instruct, and with occupations which may at once amuse and improve the understanding.

It would be superfluous to give a greater variety of instances of the sorts of amusements which are advantageous; we fear that we have already given too many, and that we have hazarded some observations, which will be thought too pompous for a chapter upon Toys. We intended to have added to this chapter an inventory of the present most fashionable articles in our toyshops, and *a list of the new assortment*, to speak in the true style of an advertisement; but we are obliged to defer this for the present; upon a future occasion we shall submit it to the judgment of the public. A revolution, *even in toyshops*, should not be attempted, unless there appear a moral certainty that we both may, and can, change for the better. The danger of doing too much in education is greater even than the danger of doing too little. As the merchants in France answered to Colbert, when he desired to know "how he could best assist them," children might, perhaps, reply to those who are most officious to amuse them: "Leave us to ourselves."

CHAPTER II.

TASKS.

"Why don't you get your task, instead of playing with your playthings from morning till night? You are grown too old now to do nothing but play. It is high time you should learn to read and write, for you cannot be a child all your life, child; so go and fetch your *book*, and learn your *task*."

This angry apostrophe is probably addressed to a child, at the moment when he is intent upon some agreeable occupation, which is now to be stigmatized with the name of Play. Why that word should all at once change its meaning; why that should now be a

crime, which was formerly a virtue; why he, who had so often been desired to *go and play*, should now be reviled for his obedience, the young casuist is unable to discover. He hears that he is no longer a child: this he is willing to believe; but the consequence is alarming. Of the new duties incumbent upon his situation, he has yet but a confused idea. In his manly character, he is not yet thoroughly perfect: his pride would make him despise every thing that is childish, but no change has yet been wrought in the inward man, and his old tastes and new ambition are in direct opposition. Whether to learn to read be a dreadful thing or not, is a question he cannot immediately solve; but if his reasoning faculty be suspended, there is yet a power secretly working within him, by which he will involuntarily be governed. This power is the power of association: of its laws, he is, probably, not more ignorant than his tutor; nor is he aware that whatever word or idea comes into his mind with any species of pain, will return, whenever it is recalled to his memory, with the same feelings. The word Task, the first time he hears it, is an unmeaning word, but it ceases to be indifferent to him the moment he hears it pronounced in a terrible voice. "Learn your task," and "fetch your book," recur to his recollection with indistinct feelings of pain; and hence, without further consideration, he will be disposed to dislike both books and tasks; but his feelings are the last things to be considered upon this occasion; the immediate business is to teach him to read. A new era in his life now commences. The age of learning begins, and begins in sorrow. The consequences of a bad beginning are proverbially ominous; but no omens can avert his fate, no omens can deter his tutor from the undertaking; the appointed moment is come; the boy is four years old, and he must learn to read. Some people, struck with a panic fear, lest their children should never learn to read and write, think that they cannot be in too great a hurry to teach them. Spelling-books, grammars, dictionaries, rods and masters, are collected; nothing is to be heard of in the house but tasks; nothing is to be seen but tears.

"No tears! no tasks! no masters! nothing upon compulsion!" say the opposite party in education. "Children must be left entirely at liberty; they will learn every thing better than you can teach them; their

memory must not be overloaded with trash; their reason must be left to grow."

Their reason will never grow unless it be exercised, is the reply; their memory must be stored while they are young, because, in youth, the memory is most tenacious. If you leave them at liberty for ever, they will never learn to spell; they will never learn Latin; they will never learn Latin grammar; yet, they must learn Latin grammar, and a number of other disagreeable things; therefore, we must give them tasks and task-masters.

In all these assertions, perhaps, we shall find a mixture of truth and error; therefore, we had better be governed by neither party, but listen to both, and examine arguments unawed by authority. And first, as to the panic fear, which, though no argument, is a most powerful motive. We see but few examples of children so extremely stupid as not to have been able to learn to read and write between the years of three and thirteen; but we see many whose temper and whose understanding have been materially injured by premature or injudicious instruction; we see many who are disgusted, perhaps irrecoverably, with literature, while they are fluently reading books which they cannot comprehend, or learning words by rote to which they affix no ideas. It is scarcely worth while to speak of the vain ambition of those who long only to have it said, that their children read sooner than those of their neighbours do; for, supposing their utmost wish to be gratified, that their son could read before the age when children commonly articulate, still the triumph must be of short duration, the fame confined to a small circle of "foes and friends," and, probably, in a few years, the memory of the phenomenon would remain only with his doting grandmother. Surely, it is the use which children make of their acquirements which is of consequence, not the possessing them a few years sooner or later. A man who, during his whole life, could never write any thing that was worth reading, would find it but poor consolation for himself, his friends, or the public, to reflect, that he had been in joining-hand before he was five years old.

As it is usually managed, it is a dreadful task indeed to learn, and, if possible, a more dreadful task to teach to read. With the help of counters, and coaxing, and

gingerbread, or by dint of reiterated pain and terror, the names of the four-and-twenty letters of the alphabet are, perhaps, in the course of some weeks, firmly fixed in the pupil's memory. So much the worse; all these names will disturb him, if he have common sense, and at every step must stop his progress. To begin with the vowels: each of these have several different sounds, and, consequently, ought to have several names, or different signs, to distinguish them in different circumstances. In the first lesson of the spelling-book, the child begins with a-b makes ab; b-a makes ba. The inference, if any general inference can be drawn from this lesson, is, that when *a* comes before *b*, it has one sound, and after *b*, it has another sound; but this is contradicted by-and-by, and it appears that *a* after *b* has various sounds, as in *ball*, in *bat*, in *bare*. The letter *i* in *fire*, is *i*, as we call it in the alphabet, but in fir it is changed; in *pin* it is changed again; so that the child, being ordered to affix to the same sign a variety of sounds and names, and not knowing in what circumstances to obey and in what to disregard the contradictory injunctions imposed upon him, he pronounces sounds at hazard, and adheres positively to the last ruled case, or maintains an apparently sullen, or truly philosophic and skeptical silence. Must *e* in *pen*, and *e* in *where*, and *e* in *verse*, and *e* in *fear*, all be called *e* alike? The child is patted on the head for reading *u* as it ought to be pronounced in *future;* but if, remembering this encouragement, the pupil should venture to pronounce *u* in *gun* and *bun*, in the same manner, he will, inevitably, be disgraced. Pain and shame impress precepts upon the mind: the child, therefore, is intent upon remembering the new sound of *u* in *bun;* but when he comes to *busy*, and *burial*, and *prudence*, his last precedent will lead him fatally astray, and he will again be called a *dunce*. *O*, in the exclamation *Oh!* is happily called by its alphabetical name; but in *to*, we can hardly know it again, and in *morning* and *wonder*, it has a third and a fourth additional sound. The amphibious letter *y*, which is either a vowel or a consonant, has one sound in one character, and two sounds in the other; as a consonant, it is pronounced as in *yesterday;* in *try*, it is sounded as *i;* in *any*, and in the termination of many other words, it is sounded like *e*. Must a child know all this by intuition, or must it be whipped into him? But he must know

a great deal more before he can read the most common words. What length of time should we allow him for learning when *c* is to be sounded like *k*, and when like *s*? and how much longer time shall we add for learning when *s* shall be pronounced *sh*, as in *sure*, or *z*, as in *has*; the sound of which last letter, *z*, he cannot, by any conjuration, obtain from the name *zed*, the only name by which he has been taught to call it? How much time shall we allow a patient tutor for teaching a docile pupil, when *g* is to be sounded soft and when hard? There are many carefully worded rules in the spelling-books, specifying before what letters and in what situations *g* shall vary in sound; but, unfortunately, these rules are difficult to be learned by heart, and still more difficult to understand. These laws, however positive, are not found to be of universal application, or at least, a child has not always wit or time to apply them upon the spur of the occasion. In coming to the words *ingenious gentleman, get a good grammar*, he may be puzzled by the nice distinctions he is to make in pronunciation in cases apparently similar; but he has not yet become acquainted with all the powers of this privileged letter: in company with *h*, it assumes the character of *f*, as in *tough*; another time he meets it, perhaps, in the same company, in the same place, and, as nearly as possible, in the same circumstances, as in the word *though*; but now *g* is to become a silent letter, and is to pass incognito, and the child will commit an unpardonable error if he claimed the incognito as his late acquaintance *f*. Still, all these are slight difficulties; a moment's reflection must convince us, that by teaching the common names of every consonant in the alphabet, we prepare a child for misery when he begins to spell or read. A consonant, as saith the spelling-book, is a letter which cannot be pronounced without a vowel before or after it: for this reason *B* is called *be*, and *L*, *el*; but why the vowel should come first in one case, or last in the second, we are not informed; nor are we told why the names of some letters have no resemblance whatever to their sounds, either with a vowel before or after them. Suppose, that after having learned the alphabet, a child was to read the words

Here is some apple-pye.

He would pronounce the letters thus:

Acheare ies esoeme apepeele pewie.

With this pronunciation the child would never decipher these simple words. It will be answered, perhaps, that no child is expected to read as soon as he has learned his alphabet: a long initiation of monosyllabic, dissyllabic, trissyllabic, and polysyllabic words is previously to be submitted to; nor, after this inauguration, are the novices capable of performing with propriety the ceremony of reading whole words and sentences. By a different method of teaching, all this waste of labour and of time, all this confusion of rules and exceptions, and all the consequent confusion in the understanding of the pupil, may be avoided.

In teaching a child to read, every letter should have a precise single sound annexed to its figure; this should never vary. Where two consonants are joined together, so as to have but one sound, as ph, sh, &c., the two letters should be coupled together by a distinct, invariable mark. Letters that are silent should be marked in such a manner as to point out to the child that they are not to be sounded. Upon these simple rules our method of teaching to read has been founded. The signs or marks, by which these distinctions are to be effected, are arbitrary, and may be varied as the teacher chooses; the addition of a single point above or below the common letters is employed to distinguish the different sounds that are given to the same letter, and a mark underneath such letters as are to be omitted, is the only apparatus necessary. These marks were employed by the author in 1776, before he had seen Sheridan's or any similar dictionary; he has found that they do not confuse children as much as figures, because when dots are used to distinguish sounds, there is only a change of place, and no change of form: but any person that chooses it may substitute figures instead of dots. It should, however, be remembered, that children must learn to distinguish the figures before they can be useful in discriminating the words.

All these sounds, and each of the characters which denote them, should be distinctly known by a child before we begin to teach him to read. And here at the first step we must entreat the teacher to have patience; to fix firmly in her mind, we say *her* mind, because we address ourselves to mothers; that it is immaterial whether a child learns this alphabet in six weeks or in six months; at all events, let it not be inculcated with re-

straint, or made tiresome, lest it should retard the whole future progress of the pupil. We do not mean to recommend the custom of teaching in play, but surely a cheerful countenance is not incompatible with application.

The three sounds of the letter (a) should first be taught; they may be learned by the dullest child in a week, if the letters are shown to him for a minute or two, twice a day. Proper moments should be chosen when the child is not intent upon any thing else; when other children have appeared to be amused with reading; when the pupil himself appears anxious to be instructed. As soon as he is acquainted with the sounds of (*a*) and with their distinguishing marks, each of these sounds should be formed into syllables, with each of the consonants; but we should never name the consonants by their usual names; if it be required to point them out by sounds, let them resemble the real sounds or powers of the consonants; but in fact, it will never be *necessary* to name the consonants separately, till their powers, in combination with the different vowels, be distinctly acquired. It will then be time enough to teach the common names of the letters. To a person unacquainted with the principles upon which this mode of teaching is founded, it must appear strange, that a child should be able to read before he knows the names of his letters; but it has been ascertained, that the names of the letters are an encumbrance in teaching a child to read.

In the quotation from Mrs. Barbauld, at the bottom of the alphabetical tables, there is a stroke between the letters *b* and *r* in *February*, and between *t* and *h* in *there*, to show that these letters are to be sounded together, so as to make one sound. The same is to be observed as to (*ng*) in the word *long*, and also as to the syllable *ing*, which, in the table No. 4, column 4, is directed to be taught as one sound. The mark (.) of obliteration, is put under (*y*) in the word *days*, under *e* final in *there*, and also under one of the *l*'s and the (*w*) in *yellow*, to show that these letters are not to be pronounced. The exceptions to this scheme of articulation are very few; such as occur are marked, with the number employed in Walker's dictionary, to denote the exception; to which excellent work the teacher will, of course, refer.

Vowels		Diphthongs		Consonants	
	sounded as in		*sounded as in*		*& double Consonants*
a	*fate*	ea	*ocean*	c	*cap*
å	*fat*			ç	*city*
ą	*fall*	ew	*few*	ch	*child*
e	*mere*			ch	*machine*
ė	*met*	ia	*filial*	g	*get*
ę	*her*			ġ	*age*
ę̊	*where*	ie	*Daniel*	ng	*long*
i	*fine*			ïng	*thing*
ĭ	*in*	io	*minion*	le	*able*
į	*bird*			re	*acre*
ī	*machine*	oi	*voice*	ph	*physic*
o	*throne*			ś	*has*
ȯ	*on*	ou	*found*	sh	*she*
ọ	*love*			sion	*fusion*
ọ̄	*move*	ow	*now*	th	*the*
u	*pure*			ti	*christian*
ŭ	*busy*	ua	*assuage*	tion	*nation*
ụ	*sun*			wh	*who*
u	*full*	ui	*languid*	ough	*tough*
ẏ	*by*				
ÿ	*ably*	oy	*joy*		

Vowels

ba ca da fa ga ha ja ka la ma
na pa qua ra sa ta va wa ya za

This mark under a Letter shows that it is not to be pronounced as eight *in which* igh *are not sounded.*

Parents, at the first sight of this new alphabet, will perhaps tremble lest they should be obliged to learn the whole of it before they begin to teach their children; but they may calm their apprehensions, for they need only point out the letters in succession to the child, and sound them as they are sounded in the words annexed to the letters in the table, and the child will soon, by repetition, render the marks of the respective letters familiar to the teacher. We have never found anybody complain of difficulty who has gone on from letter to letter along with the child who was taught.

As soon as our pupil knows the different sounds of (*a*) combined in succession with all the consonants, we may teach him the rest of the vowels joined with all the consonants, which will be a short and easy work. Our readers need not be alarmed at the apparent slowness of this method: six months, at the rate of four or five minutes each day, will render all these combinations perfectly familiar. One of Mrs. Barbauld's lessons for young children, carefully marked in the same manner as the alphabet, should, when they are well acquainted with the sounds of each of the vowels with each of the consonants, be put into our pupil's hands.*

The sound of three or four letters together will immediately become familiar to him; and when any of the less common sounds of the vowels, such as are contained in the second table, and the terminating sounds, *tion*, *ly*, &c. occur, they should be read to the child, and should be added to what he has got by rote from time to time. When all these marks and their corresponding sounds are learned, the primer should be abandoned; and from that time the child will be able to read slowly the most difficult words in the language. We must observe, that the mark of obliteration is of the greatest service; it is a clew to the whole labyrinth of intricate and uncouth orthography. The word *though*, by the obliteration of three letters, may be as easily read as *the* or *that*.

It should be observed that all people, before they can read fluently, have acquired a knowledge of the general appearance of most of the words in the language, independently of the syllables of which they are com-

* Some of these lessons, and others by the authors, will shortly be printed, and marked according to this method.

posed. Seven children in the author's family were taught to read in this manner, and three in the common method; the difference of time, labour, and sorrow, between the two modes of learning, appeared so clearly, that we can speak with confidence upon the subject. We think that nine tenths of the labour and disgust of learning to read, may be saved by this method; and that, instead of frowns and tears, the usual harbingers of learning, cheerfulness and smiles may initiate willing pupils in the most difficult of all human attainments.

A. and H., at four and five years old, after they had learned the alphabet, without having ever combined the letters into syllables, were set to read one of Mrs. Barbauld's little books. After being employed two or three minutes every day, for a fortnight, in making out the words of this book, a paper, with a few raisins well concealed in its folds, was given to each of them, with these words printed on the outside of it, marked according to our alphabet:

"Open this, and eat what you find in it."

In twenty minutes they read it distinctly, without any assistance.

The step from reading with these marks to reading without them, will be found very easy. Nothing more is necessary than to give children the same books, without marks, which they can read fluently with them.

Spelling comes next to reading. New trials for the temper; new perils for the understanding; positive rules and arbitrary exceptions; endless examples and contradictions; till at length, out of all patience with the stupid docility of his pupil, the tutor perceives the absolute necessity of making him get by heart, with all convenient speed, every word in the language. The formidable columns in dread succession arise, a host of foes; two columns a day, at least, may be conquered. Months and years are devoted to the undertaking; but after going through a whole spelling-book, perhaps a whole dictionary, till we come triumphantly to spell *Zeugma*, we have forgotten to spell *Abbot*, and we must begin again with *Abasement*. Merely the learning to spell so many unconnected words, without any assistance from reason or analogy, is nothing, compared with the difficulty of learning the explanation of them by rote, and the still greater difficulty of understanding

the meaning of the explanation. When a child has got by rote,

"Midnight, the *depth* of night;"

"Metaphysics, the science which treats of immaterial beings, and of forms in general abstracted from matter;"

has he acquired any distinct ideas, either of midnight or of metaphysics? If a boy had eaten rice pudding, till he fancied himself tolerably well acquainted with rice, would he find his knowledge much improved, by learning from his spelling-book, the words—

"Rice, a foreign, esculent grain?"

Yet we are surprised to discover, that men have so few accurate ideas, and that so many learned disputes originate in a confused or improper use of words.

"All this is very true," says a candid schoolmaster; "we see the evil, but we cannot new-model the language, or write a perfect philosophical dictionary; and, in the meantime, we are bound to teach children to spell, which we do with the less reluctance, because, though we allow that it is an arduous task, we have found from experience that it can be accomplished, and that the understandings of many of our pupils survive all the perils to which you think them exposed during the operation.

The understandings may, and do survive the operation; but why should they be put in unnecessary danger? and why should we early disgust children with literature, by the pain and difficulty of their first lessons? We are convinced, that the business of learning to spell is made much more laborious to children than it need to be: it may be useful to give them five or six words every day to learn by heart, but more only loads their memory; and we should at first select words of which they know the meaning, and which occur most frequently in reading, or conversation. The alphabetical list of words in a spelling-book contains many which are not in common use, and the pupil forgets these as fast as he learns them. We have found it entertaining to children, to ask them to spell any short sentence as it has been accidentally spoken. "Put this book on that table." Ask a child how he would spell these words, if he were obliged to write them down; and you introduce into his mind the idea that he must learn to spell before he can make his words and

thoughts understood in writing. It is a good way to make children write down a few words of their own selection every day, and correct the spelling; and also after they have been reading, while the words are yet fresh in their memory, we may ask them to spell some of the words which they have just seen. By these means, and by repeating, at different times in the day, those words which are most frequently wanted, his vocabulary will be pretty well stocked without its having cost him any tears. We should observe that children learn to spell more by the eye than by the ear, and that the more they read and write, the more likely they will be to remember the combination of letters in words which they have continually before their eyes, or which they feel it necessary to represent to others. When young people begin to write, they first feel the use of spelling; and it is then that they will learn it with most ease and precision. Then the greatest care should be taken to look over their writing, and to make them correct every word in which they have made a mistake; because bad habits of spelling, once contracted, can scarcely be cured: the understanding has nothing to do with the business; and when the memory is puzzled between the rules of spelling right, and the habits of spelling wrong, it becomes a misfortune to the pupil to write even a common letter. The shame which is annexed to bad spelling excites young people's attention, as soon as they are able to understand that it is considered as a mark of ignorance and ill-breeding. We have often observed, that children listen with anxiety to the remarks that are made upon this subject in their presence, especially when the letters or notes of *grown up people* are criticised.

Some time ago, a lady, who was reading a newspaper, met with the story of an ignorant magistrate, who gave for his toast, at a public dinner, the two K's, for the King and Constitution. "How very much ashamed the man must have felt, when all the people laughed at him for his mistake! they must have all seen that he did not know how to spell; and what a disgrace for a magistrate too!" said a boy who heard the anecdote. It made a serious impression upon him. A few months afterward he was employed by his father in an occupation which was extremely agreeable to him, but in which he continually felt the necessity of spelling correctly. He

was employed to send messages by a telegraph; these messages he was obliged to write down hastily, in little journals kept for the purpose; and as these were seen by several people, when the business of the day came to be reviewed, the boy had a considerable motive for orthographical exactness. He became extremely desirous to teach himself, and consequently his success was from that moment certain. As to the rest, we refer to Lady Carlisle's comprehensive maxim, "Spell well if you can."

It is undoubtedly of consequence to teach the rudiments of literary education early, to get over the first difficulties of reading, writing, and spelling; but much of the anxiety, and bustle, and labour of teaching these things, may be advantageously spared. If more attention were turned to the general cultivation of the understanding, and if more pains were taken to make literature agreeable to children, there would be found less difficulty to excite them to mental exertion, or to induce the habits of persevering application.

When we speak of rendering literature agreeable to children, and of the danger of associating pains with the sight of a book, or with the sound of the word *task*, we should at the same time avoid the error of those who, in their first lessons, accustom their pupils to so much amusement, that they cannot help afterward feeling disgusted with the sobriety of instruction. It has been the fashion of late to attempt teaching every thing to children in play; and ingenious people have contrived to insinuate much useful knowledge without betraying the design to instruct; but this system cannot be pursued beyond certain bounds without many inconveniences. The habit of being amused not only increases the desire for amusement, but it lessens even the relish for pleasure; so that the mind becomes passive and indolent, and a course of perpetually increasing stimulus is necessary to awaken attention. When dissipated habits are acquired, the pupil loses power over his own mind; and, instead of vigorous voluntary exertion, which he should be able to command, he shows that wayward imbecility which can think successfully only by fits and starts: this paralytic state of mind has been found to be one of the greatest calamities attendant on what is called genius; and injudicious education creates or increases this disease. Let us not, therefore, humour children in this capricious

temper, especially if they have quick abilities; let us give rewards proportioned to their exertions with uniform justice, but let us not grant bounties in education, which, however they may appear to succeed in effecting partial and temporary purposes, are not calculated to ensure any consequences permanently beneficial. The truth is, that useful knowledge cannot be obtained without labour; that attention long continued is laborious, but that without this labour nothing excellent can be accomplished. Excite a child to attend in earnest for a short time, his mind will be less fatigued, and his understanding more improved, than if he had exerted but half the energy twice as long: the degree of pain which he may have felt will be amply and properly compensated by his success; this will not be an arbitrary, variable reward, but one within his own power, and that can be ascertained by his own feelings. Here is no deceit practised, no illusion; the same course of conduct may be regularly pursued through the whole of his education, and his confidence in his tutor will progressively increase. On the contrary, if, to entice him to enter the paths of knowledge, we strew them with flowers, how will he feel when he must force his way through thorns and briers!

There is a material difference between teaching children in play, and making learning a task; in the one case we associate factitious pleasure, in the other factitious pain, with the object: both produce pernicious effects upon the temper, and retard the natural progress of the understanding. The advocates in favour of "scholastic badinage" have urged that it excites an interest in the minds of children similar to that which makes them endure a considerable degree of labour in the pursuit of their amusements. Children, it is said, work hard at play, therefore we should let them play at work. Would not this produce effects the very reverse of what we desire? The whole question must at last depend upon the meaning of the word play: if by play be meant every thing that is not usually called a task, then undoubtedly much may be learned at play: if, on the contrary, we mean by the expression to describe that state of fidgeting idleness, or of boisterous activity, in which the intellectual powers are torpid, or stunned with unmeaning noise, the assertion contradicts itself. At play so defined, children can learn nothing but bodily activity; it

is certainly true, that when children are interested about any thing, whether it be about what we call a trifle, or a matter of consequence, they will exert themselves in order to succeed; but from the moment the attention is fixed, no matter on what, children are no longer at idle play, they are at active work.

S——, a little boy of nine years old, was standing without any book in his hand, and seemingly idle; he was amusing himself with looking at what he called a rainbow upon the floor; he begged his sister M—— to look at it; then he said he wondered what could make it; how it came there. The sun shone bright through the window; the boy moved several things in the room, so as to place them sometimes between the light and the colours which he saw upon the floor, and sometimes in a corner of the room where the sun did not shine. As he moved the things, he said, "This is not it"—"nor this"—"this hasn't any thing to do with it." At last he found, that when he moved a tumbler of water out of the place where it stood, his rainbow vanished. Some violets were in the tumbler; S—— thought they might be the cause of the colours which he saw upon the floor, or, as he expressed it, "Perhaps these may be the thing." He took the violets out of the water; the colours remained upon the floor. He then thought that "it might be the water." He emptied the glass; the colours remained, but they were fainter. S—— immediately observed that it was the water and glass together that made the rainbow. "But," said he, "there is no glass in the sky, yet there is a rainbow, so that I think the water alone would do, if we could but hold it together without the glass. Oh, I know how I can manage." He poured the water slowly out of the tumbler into a basin, which he placed where the sun shone, and he saw the colours on the floor twinkling behind the water as it fell: this delighted him much; but he asked why it would not do when the sun did not shine. The sun went behind a cloud while he was trying his experiments: "There was light," said he, "though there was no sunshine." He then said he thought that the different thickness of the glass was the cause of the variety of colours: afterward he said he thought that the clearness or muddiness of the different drops of water was the cause of the different colours.

A rigid preceptor, who thinks that every boy must be

idle who has not a Latin book constantly in his hand, would perhaps have reprimanded S—— for wasting his time *at play*, and would have summoned him from his rainbow to his *task;* but it is very obvious to any person free from prejudices, that this child was not idle while he was meditating upon the rainbow on the floor; his attention was fixed; he was reasoning; he was trying experiments. We may call this *play* if we please, and we may say that Descartes was at play when he first verified Antonio de Dominis, Bishop of Spalatro's, treatise of the rainbow, by an experiment with a glass globe:* and we may say that Buffon was idle, when his pleased attention was first caught with a landscape of green shadows, when one evening at sunset he first observed that the shadows of trees, which fell upon a white wall, were green. He was first delighted with the exact representation of a green arbour, which seemed as if it had been newly painted on the wall. Certainly the boy with his rainbow on the floor was as much amused as the philosopher with his coloured shadows; and, however high-sounding the name of Antonio de Dominis, Bishop of Spalatro, it does not alter the business in the least; he could have exerted only his *utmost attention* upon the theory of the rainbow, and the child did the same. We do not mean to compare the powers of reasoning, or the abilities of the child and the philosopher; we would only show that the same species of attention was exerted by both.

To fix the attention of children, or, in other words, to interest them about those subjects to which we wish them to apply, must be our first object in the early cultivation of the understanding. This we shall not find a difficult undertaking if we have no false associations, no painful recollections to contend with. We can connect any species of knowledge with those occupations which are immediately agreeable to young people: for instance, if a child is building a house, we may take that opportunity to teach him how bricks are made, how the arches over doors and windows are made, the nature of the keystone and butments of an arch, the manner in which all the different parts of the roof of a house are put together, &c.; while he is learning all this he is eagerly and seriously attentive, and we educate his understand-

* See Priestley's History of Vision, vol. i. p. 51.

ing in the best possible method. But if, mistaking the application of the principle, that literature should be made agreeable to children, we should entice a child to learn his letters by a promise of a gilt coach, or by telling him that he would be the cleverest boy in the world if he could but learn the letter *A*, we use false and foolish motives; we may possibly, by such means, effect the immediate purpose, but we shall assuredly have reason to repent of such imprudent deceit. If the child reasons at all, he will be content after his first lesson with being "the cleverest boy in the world," and he will not, on a future occasion, hazard his fame, having much to lose, and nothing to gain; besides, he is now master of a gilt coach, and some new and larger reward must be proffered to excite his industry. Besides the disadvantage of early exhausting our stock of incitements, it is dangerous in teaching to humour pupils with a variety of objects by way of relieving their attention. The pleasure of *thinking*, and much of the profit, must frequently depend upon preserving the greatest possible connexion between our ideas. Those who allow themselves to start from one object to another, acquire such dissipated habits of mind, that they cannot, without extreme difficulty and reluctance, follow any connected train of thought. You cannot teach those who will not follow the chain of your reasons; upon the connexion of our ideas, useful memory and reasoning must depend. We will give you an instance: arithmetic is one of the first things that we attempt to teach children. In the following dialogue, which passed between a boy of five years old and his father, we may observe that, till the child followed his father's train of ideas, he could not be taught.

Father. *S*——, how many can you take from one?

S——. None.

Father. None! Think; can you take nothing from one?

S——. None, except that one.

Father. Except! Then you can take one from one?

S——. Yes, *that one.*

Father. How many, then, can you take from one?

S.——. One.

Father. Very true; but now, can you take two from one?

S——. Yes, if they were figures I could with a rub-

ber-out. (This child had frequently sums written for him with a black lead pencil, and he used to rub out his figures when they were wrong with India-rubber, which he had heard called *rubber-out*.)

Father. Yes, you could; but now we will not talk of figures, we will talk of things. There may be one horse or two horses, or one man or two men.

S.——. Yes, or one coat or two coats.

Father. Yes, or one thing or two things, no matter what they are. Now, could you take two things from one thing?

S——. Yes, if there were three things I could take away two things, and leave one.

His father took up a cake from the tea-table.

Father. Could I take two cakes from this one cake?

S——. You could take two pieces.

His father divided the cake into halves, and held up each half, so that the child might distinctly see them.

Father. What would you call these two pieces?

S——. Two cakes.

Father. No, not two cakes.

S——. Two biscuits.

Father. (Holding up a whole biscuit:) What is this?

S——. A thing to eat.

Father. Yes, but what would you call it?

S——. A biscuit.

His father broke it into halves, and showed one half.

Father. What would you call this?

S—— was silent, and his sister was applied to, who answered, "Half a biscuit."

Father. Very well; that's all at present.

The father prudently stopped here, that he might not confuse his pupil's understanding. Those only who have attempted to teach children can conceive how extremely difficult it is to fix their attention, or to make them seize the connexion of ideas, which it appears to us almost impossible to miss. Children are well occupied in examining external objects, but they must also attend to words as well as things. One of the great difficulties in early instruction arises from the want of words: the pupil very often has acquired the necessary ideas, but they are not associated in his mind with the words which his tutor uses; these words are then to him mere sounds, which suggest no correspondent

thoughts. Words, as M. Condjllac well observes,* are essential to our acquisition of knowledge; they are the medium through which one set of beings can convey the result of their experiments and observations to another; they are, in all mental processes, the algebraic signs which assist us in solving the most difficult problems. What agony does a foreigner, knowing himself to be a man of sense, appear to suffer, when, for want of language, he cannot in conversation communicate his knowledge, explain his reasons, enforce his arguments, or make his wit intelligible? In vain he has recourse to the language of action. The language of action, or, as Bacon calls it, of "transitory hieroglyphic," is expressive, but inadequate. As new ideas are collected in the mind, new signs are wanted; and the progress of the understanding would be early and fatally impeded by the want of language. M. de la Condamine tells us that there is a nation who have no sign to express the number three but this word, *poellartarrorincourac.* These people having begun, as Condillac observes, in such an incommodious manner, it is not surprising that they have not advanced further in their knowledge of arithmetic: they have got no further than the number three; their knowledge of arithmetic stops for ever at *poellartarrorincourac.* But even this cumbersome sign is better than none. Those who have the misfortune to be born deaf and dumb, continue for ever in intellectual imbecility. There is an account in the Memoires de l'Académie Royale, p. xxii—xxiii, 1703, of a young man born deaf and dumb,† who recovered his hearing at the age of four-and-twenty, and who, after employing himself in repeating low to himself the words which he heard others pronounce, at length broke silence in company, and declared that he could talk. His conversation was but imperfect; he was examined by several able theologians, who chiefly questioned him on his ideas of God, the soul, and the morality or immorality of actions. It appeared that he had not thought upon any of these subjects; he did not distinctly know what was meant by death, and he never thought of it. He seemed to pass a merely animal life, occupied with sensible, present

* "Art de Penser."

† See Condillac's Art de Penser. In the chapter "on the use of signs," this young man is mentioned.

objects, and with a few ideas which he received by his sense of sight; nor did he seem to have gained as much knowledge as he might have done, by the comparison of these ideas; yet it is said that he did not appear naturally deficient in understanding.

Peter, the wild boy, who is mentioned in Lord Monboddo's Origin of Language,* had all his senses in remarkable perfection. He lived at a farmhouse within half a mile of us in Hertfordshire for some years, and we had frequent opportunities of trying experiments upon him. He could articulate imperfectly a few words, in particular, *King George*, which words he always accompanied with an imitation of the bells, which rang at the coronation of George the Second; he could in a manner imitate two or three common tunes, but without words. Though his head, as Mr. Wedgewood and many others had remarked, resembled that of Socrates, he was an idiot: he had acquired a few automatic habits of rationality and industry, but he could never be made to work at any continued occupation: he would shut the door of the farmyard five hundred times a day, but he would not reap or make hay. Drawing water from a neighbouring river was the only domestic business which he regularly pursued. In 1779 we visited him, and tried the following experiment. He was attended to the river by a person who emptied his buckets repeatedly, after Peter had repeatedly filled them. A shilling was put before his face into one of the buckets when it was empty; he took no notice of it, but filled it with water and carried it homeward: his buckets were taken from him before he reached the house and emptied on the ground; the shilling, which had fallen out, was again shown to him, and put into the bucket. Peter returned to the river again, filled his bucket, and went home; and when the bucket was emptied by the maid at the house where he lived, he took the shilling and laid it in a place where he was accustomed to deposite the presents that were made to him by curious strangers, and whence the farmer's wife collected the price of his daily exhibition. It appeared that this savage could not be taught to reason for want of language.

Rousseau declaims with eloquence, and often with justice, against what he calls a knowledge of words.

* Vol. II.

Words without correspondent ideas are worse than useless; they are counterfeit coin, which imposes upon the ignorant and unwary: but words which really represent ideas, are not only of current use, but of sterling value; they not only show our present store, but they increase our wealth, by keeping it in continual circulation; both the principal and the interest increase together. The importance of signs and words in our reasonings, has been eloquently explained since the time of Condillac, by Stewart. We must use the ideas of these excellent writers, because they are just and applicable to the art of education; but while we use, it is with proper acknowledgments that we borrow, what we shall never be able to return.

It is a nice and difficult thing in education, to proportion a child's vocabulary exactly to his knowledge, dispositions, or conformation; our management must vary; some will acquire words too quickly, others too slowly. A child who has great facility in pronouncing sounds, will, for that reason, quickly acquire a number of words; while those whose organs of speech are not so happily formed, will, from that cause alone, be ready in forming a copious vocabulary. Children who have many companions, or who live with people who converse a great deal, have more motive, both from sympathy and emulation, to acquire a variety of words, than those who live with silent people, and who have few companions of their own age. All these circumstances should be considered by parents, before they form their judgment of a child's capacity from his volubility or his taciturnity. Volubility can easily be checked by simply ceasing to attend to it, and taciturnity may be vanquished by the encouragements of praise and affection: we should neither be alarmed at one disposition nor at the other, but steadily pursue the system of conduct which will be most advantageous to both. When a prattling, vivacious child pours forth a multiplicity of words without understanding their meaning, we may sometimes beg to have an explanation of a few of them, and the child will then be obliged to think, which will prevent him from talking nonsense another time. When a thoughtful boy, who is in the habit of observing every object he sees, is at a loss for words to express his ideas, his countenance usually shows, to those who can read the countenance of children, that he is not stupid;

therefore, we need not urge him to talk, but assist him judiciously with words "in his utmost need:" at the same time we should observe carefully, whether he grows lazy when we assist him; if his stock of words does not increase in proportion to the assistance we give, we should then stimulate him to exertion, or else he will become habitually indolent in expressing his ideas; though he may *think* in a language of his own, he will not be able to understand our language when we attempt to teach him: this would be a source of daily misery to both parties.

When children begin to read, they seem suddenly to acquire a great variety of words: we should carefully examine whether they annex the proper meaning to these which are so rapidly collected. Instead of giving them lessons and tasks to get by rote, we should cautiously watch over every new phrase and every new word which they learn from books. There are but few books so written that young children can comprehend a single sentence in them without much explanation. It is tiresome to those who hear them read to explain every word; it is not only tiresome, but difficult; besides, the progress of the pupil seems to be retarded; the grand business of reading, of getting through the book, is impeded; and the tutor, more impatient than his pupil, says, "Read on; I cannot stop to explain *that* to you now. You will understand the meaning of the sentence if you will read to the end of the page. You have not read three lines this half hour; we shall never get on at this rate."

A certain dame at a country school, who had never been able to compass the word Nebuchadnezzar, used to desire her pupils to "call it Nazareth, and let it pass."

If they be obliged to pass over words without comprehending them in books, they will probably do the same in conversation; and the difficulty of teaching such pupils, and of understanding what they say, will be equally increased. At the hazard of being tedious, we must dwell a little longer upon this subject, because much of the future capacity of children seems to depend upon the manner in which they first acquire language. If their language be confused, so will be their thoughts; and they will not be able to reason, to invent, or to write, with more precision and accuracy than they

speak. The first words that children learn are the names of things: these are easily associated with the objects themselves, and there is little danger of mistake or confusion. We will not enter into the grammatical dispute concerning the right of precedency, among pronouns, substantives, and verbs; we do not know which came first into the mind of man; perhaps, in different minds, and in different circumstances, the precedency must have varied; but this seems to be of little consequence; children see actions performed, and they act themselves: when they want to express their remembrance of these actions, they make use of the sort of words which we call verbs. Let these words be strictly associated with the ideas which they mean to express, and no matter whether children know any thing about the disputes of grammarians, they will understand rational grammar in due time, simply by reflecting upon their own minds. This we shall explain more fully when we speak hereafter of grammar; we just mention the subject here, to warn preceptors against puzzling their pupils too early with grammatical subtleties.

If any person unused to mechanics were to read Dr. Desagulier's description of the manner in which a man walks, the number of a-b-c's, and the travels of the centre of gravity, it would so amaze and confound him, that he would scarcely believe he could ever again perform such a tremendous operation as that of walking. Children, if they were early to hear grammarians talk of the parts of speech, and of syntax, would conclude, that to speak must be one of the most difficult arts in the world; but children, who are not usually so unfortunate as to have grammarians for their preceptors, when they first begin to speak, acquire language, without being aware of the difficulties which would appear so formidable in theory. A child points to, or touches the table, and when the word table is repeated, at the same instant he learns the name of the thing. The facility with which a number of names are thus learned in infancy is surprising; but we must not imagine that the child, in learning these names, has acquired much knowledge; he has prepared himself to be taught, but he has not yet learned any thing accurately. When a child sees a guinea and a shilling, and smiling says, "That's a guinea, mamma! and that's a shilling!" the

mother is pleased and surprised by her son's intelligence, and she gives him credit for more than he really possesses. We have associated with the words guinea and shilling a number of ideas, and when we hear the same words pronounced by a young child, we perhaps have some confused belief that he has acquired the same ideas that we have; hence we are pleased with the mere sound of words of high import from infantine lips.

Children, who are delighted in their turn by the expression of pleasure in the countenance of others, repeat the things which they perceive have pleased; and thus their education is begun by those who first smile upon them, and listen to them when they attempt to speak. They who applaud children for knowing the names of things, induce them quickly to learn a number of names by rote; as long as they learn the names of external objects only, which they can see, and smell, and touch, all is well; the names will convey distinct ideas of certain perceptions. A child who learns the name of a taste, or of a colour, who learns that the taste of sugar is called sweet, and that the colour of a red rose is called red, has learned distinct words to express certain perceptions; and we can at any future time recall to his mind the memory of those perceptions by means of their names, and he understands us as well as the most learned philosopher. But, suppose that a boy had learned only the name of gold; that when different metals were shown to him, he could put his finger upon gold, and say, "That is gold;" yet this boy does not know all the properties of gold; he does not know in what it differs from other metals; to what uses it is applied in arts, manufactures, and commerce; the name of gold, in his mind, represents nothing more than a substance of a bright yellow colour, upon which people, he does not precisely know why, set a great value. Now, it is very possible, that a child might, on the contrary, learn all the properties, and the various uses of gold, without having learned its name: his ideas of this metal would be perfectly distinct; but whenever he wished to speak of gold, he would be obliged to use a vast deal of circumlocution to make himself understood; and if he were to enumerate all the properties of the metal every time he wanted to recall the general idea, his conversation would be intolerably tedious to

others, and to himself this useless repetition must be extremely laborious. He would certainly be glad to learn that single word *gold*, which would save him so much trouble; his understanding would appear suddenly to have improved, simply from his having acquired a proper sign to represent his ideas. The boy who had learned the name, without knowing any of the properties of gold, would also appear comparatively ignorant, as soon as it is discovered that he has few ideas annexed to the word. It is, perhaps, for this reason, that some children seem suddenly to shine out with knowledge, which no one suspected they possessed; while others, who had appeared to be very quick and clever, come to a dead stop in their education, and appear to be blighted by some unknown cause. The children who suddenly shine out, are those who had acquired a number of ideas, and who, the moment they acquire proper words, can communicate their thoughts to others. Those children who suddenly seem to lose their superiority, are those who had acquired a variety of words, but who had not annexed ideas to them. When their ignorance is detected, we not only despair of them, but they are apt to despair of themselves: they see their companions get before them, and they do not exactly perceive the cause of their sudden incapacity. Where we speak of sensible, visible, tangible objects, we can easily detect and remedy a child's ignorance. It is easy to discover whether he has or has not a complete notion of such a substance as gold; we can enumerate its properties, and readily point out in what his definition is defective. The substance can be easily produced for examination; most of its properties are obvious to the senses; we have nothing to do but to show them to the child, and to associate with each property its usual name; here there can be no danger of puzzling his understanding; but when we come to the explanation of words which do not represent external objects, we shall find the affair more difficult. We can make children understand the meaning of those words which are the names of simple feelings of the mind, such as surprise, joy, grief, pity; because we can either put our pupils in situations where they actually feel these sensations, and then we may associate the name with the feelings; or we may, by the example of other people, who actually suffer pain or enjoy pleasure, point out what we mean by

the words joy and grief. But how shall we explain to our young pupils a number of words which represent neither existing substances nor simple feelings, when we can neither recur to experiment nor to sympathy for assistance? How shall we explain, for instance, the words virtue, justice, benevolence, beauty, taste, &c.? To analyze our own ideas of these is no easy task; to explain the process to a young child is scarcely possible. Call upon any man, who has read and reflected, for a definition of virtue; the whole "theory of moral sentiments" rises, perhaps, to his view at once, in all its elegance; the paradoxical acumen of Mandeville, the perspicuous reasoning of Hume, the accurate metaphysics of Condillac, the persuasive eloquence of Stewart; all the various doctrines that have been supported concerning the foundation of morals, such as the fitness of things, the moral sense, the beauty of truth, utility, sympathy, common sense; all that has been said by ancient and modern philosophers, is recalled in transient, perplexing succession, to his memory. If such be the state of mind of the man who is to define, what must be the condition of the child who is to understand the definition? All that a prudent person will attempt, is to give instances of different virtues; but even these, it will be difficult properly to select for a child. General terms, whether in morals or in natural philosophy, should, we apprehend, be as much as possible avoided in early education. Some people may imagine that children have improved in virtue and wisdom, when they can talk fluently of justice, and charity, and humanity; when they can read with a good emphasis any didactic compositions in verse or prose. But let any person of sober common sense be allowed to cross-examine these proficients, and the pretended extent of their knowledge will shrink into a narrow compass; nor will their virtues, which have never seen service, be ready for action.

General terms are, as it were, but the endorsements upon the bundles of our ideas; they are useful to those who have collected a number of ideas, but utterly useless to those who have no collections ready for classification: nor should we be in a hurry to tie up the bundles, till we are sure that the collection is tolerably complete; the trouble, the difficulty, the shame of untying them late in life, is felt even by superior minds. "Sir,"

said Dr. Johnson, "I don't like to have any of my opinions attacked. I have made up my fagot, and if you draw out one you weaken the whole bundle."

Preceptors sometimes explain general terms and abstract notions vaguely to their pupils, simply because they are ashamed to make that answer which every sensible person must frequently make to a child's inquiries. "I don't know."* Surely it is much better to say at once, "I cannot explain this to you," than to attempt an imperfect or sophistical reply. Fortunately for us, children, if they are not forced to attend to studies for which they have no taste, will not trouble us much with moral and metaphysical questions; their attention will be fully employed upon external objects; intent upon experiments, they will not be very inquisitive about theories. Let us then take care that their simple ideas be accurate, and when these are compounded, their complex notions, their principles, opinions, and tastes, will necessarily be just; their language will then be as accurate as their ideas are distinct; and hence they will be enabled to reason with precision and to invent with facility. We may observe, that the great difficulty in reasoning is to fix steadily upon our terms; ideas can be readily compared, when the words by which we express them are defined; as in arithmetic and algebra, we can easily solve any problem, when we have precise signs for all the numbers and quantities which are to be considered.

It is not from idleness, it is not from stupidity, it is not from obstinacy, that children frequently show an indisposition to listen to those who attempt to explain things to them. The exertion of attention which is frequently required from them, is too great for the patience of childhood: the words that are used are so inaccurate in their signification, that they convey to the mind sometimes one idea and sometimes another; we might as well require of them to cast up a sum right while we rubbed out and changed the figures every instant, as expect that they should seize a combination of ideas presented to them in variable words. Whoever expects to command the attention of an intelligent child, must be extremely careful in the use of words. If the pupil be paid for the labour of listening by the pleasure of understanding what is said, he will attend, whether it

* Rousseau.

be to his playfellow or to his tutor, to conversation or to books. But if he has by fatal experience discovered, that, let him listen ever so intently, he cannot understand, he will spare himself the trouble of fruitless exertion; and, though he may put on a face of attention, his thoughts will wander far from his tutor and his tasks.

"It is impossible to fix the attention of children," exclaims the tutor; "when this boy attends he can do any thing, but he will not attend for a single instant."

Alas! it is in vain to say he *will not* attend; he *cannot*.

CHAPTER III.

ON ATTENTION.

Pere Bourgeois, one of the missionaries to China, attempted to preach a Chinese sermon to the Chinese. His own account of the business is the best we can give.

"They told me *Chou* signifies a book, so that I thought whenever the word *Chou* was pronounced, a book was the subject of discourse; not at all. Chou, the next time I heard it, I found signified *a tree*. Now I was to recollect Chou was a book and a tree; but this amounted to nothing. Chou I found also expressed *great heats*. Chou is *to relate*. Chou is *the Aurora*. Chou means, *to be accustomed*. Chou expresses the *loss of a wager*, *&c.* I should never have done were I to enumerate all its meanings. * * * * * * * * * * * * *

"I recited my sermon at least fifty times to my servant before I spoke it in public; and yet I am told, though he continually corrected me, that of the ten parts of the sermon (as the Chinese express themselves) they hardly understood three. Fortunately, the Chinese are wonderfully patient."

Children are sometimes in the condition in which the Chinese found themselves at this learned missionary's sermon, and their patience deserves to be equally commended. The difficulty of understanding the Chinese Chou, strikes us immediately, and we sympathize with Pere Bourgeois's perplexity; yet, many words which are in common use among us, may perhaps be as puzzling to children. *Block* (see Johnson's Dictionary)

signifies *a heavy piece of timber, a mass of matter.* Block means *the wood on which hats are formed.* Block means *the wood on which criminals are beheaded.* Block is *a sea-term for pulley.* Block is *an obstruction, a stop;* and finally, Block means *a blockhead.*

There are, in our language, ten meanings for *sweet*, ten for *open*, twenty-two for *upon*, and sixty-three for *to fall.* Such are the defects of language! But, whatever they may be, we cannot hope immediately to see them reformed, because common consent, and universal custom, must combine to establish a new vocabulary. None but philosophers could invent, and none but philosophers would adopt a philosophical language.

The new philosophical language of chymistry was received at first with some reluctance, even by chymists, notwithstanding its obvious utility and elegance. Butter of antimony, and liver of sulphur, flowers of zinc, oil of vitriol, and spirit of sulphur by the bell, powder of algaroth, and salt of alem-broth, may yet long retain their ancient titles among apothecaries. There does not exist in the mineral kingdom either butter or oil, or yet flowers; these treacherous names* are given to the most violent poisons, so that there is no analogy to guide the understanding or the memory: but Custom has a prescriptive right to talk nonsense. The barbarous enigmatical jargon of the ancient adepts continued for above a century to be the only chymical language of men of science, notwithstanding the prodigious labour to the memory, and confusion to the understanding, which it occasioned: they have but just now left off calling one of their vessels for distilling a death's head, and another a helmet. Capricious analogy with difficulty yields to rational arrangement. If such has been the slow progress of a philosophical language among the learned, how can we expect to make a general, or even a partial reformation among the ignorant? And it may be asked, how can we in education attempt to teach in any but customary terms? There is no occasion to make any sudden or violent alteration in language; but a man who attempts to teach will find it necessary to select his terms with care, to define them with accuracy, and to abide by them with steadiness; thus he will make a philosophical vocabulary for him-

* See Preface to Berthollet's Chymical Nomenclature.

self. Persons who want to puzzle and to deceive always pursue a contrary practice; they use as great a variety of unmeaning, or of ambiguous words, as they possibly can.* That state juggler, Oliver Cromwell, excelled in this species of eloquence; his speeches are models in their kind. Count Cagliostro, and the Countess de la Motte, were not his superiors in the power of baffling the understanding. The ancient oracles, and the old books of judicial astrologers, and of alchymists, were contrived upon the same principles; in all these we are confounded by a multiplicity of words which convey a doubtful sense.

Children, who have not the habit of listening to words without understanding them, yawn and writhe with manifest symptoms of disgust, whenever they are compelled to hear sounds which convey no ideas to their minds. All supernumerary words should be avoided in cultivating the power of attention.

The common observation, that we can attend to but one thing at a time, should never be forgotten by those who expect to succeed in the art of teaching. In teaching new terms, or new ideas, we must not produce a number at once. It is prudent to consider, that the actual progress made in our business at one sitting is not of so much consequence, as the desire left in the pupil's mind to sit again. Now a child will be better pleased with himself, and with his tutor, if he acquire one distinct idea from a lesson, than if he retained a confused notion of twenty different things. Some people imagine, that as children appear averse to repetition, variety will amuse them. Variety, to a certain degree, certainly relieves the mind; but then the objects which are varied must not all be entirely new. Novelty and variety, joined, fatigue the mind. Either we remain passive at the show, or else we fatigue ourselves with ineffectual activity.

A few years ago, a gentleman† brought two Esquimaux to London—he wished to amuse, and at the same time to astonish them, with the great magnificence of the metropolis. For this purpose, after having equipped them like English gentlemen, he took them out one morning to walk through the streets of London. They

* V. Condillac's "Art de Penser."
† Major Cartwright. See his Journal, &c.

walked for several hours in silence; they expressed neither pleasure nor admiration at any thing which they saw. When their walk was ended, they appeared uncommonly melancholy and stupified. As soon as they got home, they sat down with their elbows upon their knees, and hid their faces between their hands. The only words they could be brought to utter, were, "Too much smoke—too much noise—too much houses—too much men—too much every thing!"

Some people who attend public lectures upon natural philosophy, with the expectation of being much amused and instructed, go home with sensations similar to those of the poor Esquimaux; they feel that they have had too much of every thing. The lecturer has not time to explain his terms, or to repeat them till they are distinct in the memory of his audience.* To children, every mode of instruction must be hurtful which fatigues attention; therefore, a skilful preceptor will, as much as possible, avoid the manner of teaching, to which the public lecturer is in some degree compelled by his situation. A private preceptor, who undertakes the instruction of several pupils in the same family, will examine with care the different habits and tempers of his pupils; and he will have full leisure to adapt his instructions peculiarly to each.

There are some general observations which apply to all understandings; these we shall first enumerate, and we may afterward examine what distinctions should be made for pupils of different tempers or different dispositions.

Besides distinctness and accuracy in the language which we use, besides care to produce but few ideas or terms that are new in our first lessons, we must exercise attention only during very short periods. In the beginning of every science pupils have much laborious work; we should therefore allow them time; we should repress our own impatience when they appear to be slow in comprehending reasons, or in seizing analogies. We often expect, that those whom we are teaching should know some things intuitively, because these may have been so long known to us that we forget how we learned them. We may, from habit, learn to pass with extraordinary velocity from one idea to another. "Some

* V. Chapter on Mechanics.

often repeated processes of reasoning or invention," says Mr. Stewart, "may be carried on so quickly in the mind, that we may not be conscious of them ourselves." Yet we easily convince ourselves that this rapid facility of thought is purely the result of practice, by observing the comparatively slow progress of our understandings in subjects to which we have not been accustomed: the progress of the mind is there so slow, that we can count every step.

We are disposed to think that those must be naturally slow and stupid, who do not perceive the resemblances between objects which strike us, we say, at the first glance. But what we call the first glance is frequently the fiftieth: we have got the things completely by heart; all the parts are known to us, and we are at leisure to compare and judge. A reasonable preceptor will not expect from his pupils two efforts of attention at the same instant; he will not require them at once to learn terms by heart, and to compare the objects which those terms represent; he will repeat his terms till they are thoroughly fixed in the memory; he will repeat his reasoning till the chain of ideas is completely formed.

Repetition makes all operations easy; even the fatigue of thinking diminishes by habit. That we may not increase the labour of the mind unseasonably, we should watch for the moment when habit has made one lesson easy, and when we may go forward a new step. In teaching the children at the House of Industry at Munich to spin, Count Rumford wisely ordered that they should be made perfect in one motion before any other was shown to them: at first they were allowed only to move the wheel by the treadle with their feet; when, after sufficient practice, the foot became perfect in its lesson, the hands were set to work, and the children were allowed to begin to spin with coarse materials. It is said that these children made remarkably good spinners. Madame de Genlis applied the same principle in teaching Adela to play upon the harp.*

In the first attempts to learn any new bodily exercise, as fencing or dancing, persons are not certain what muscles they must use, and what may be left at rest; they generally employ those of which they have the most ready command, but these may not always be the mus-

* V. Adela and Theodore

cles which are really wanted in the new operation. The simplest thing appears difficult, till, by practice, we have associated the various slight motions which ought to be combined. We feel, that from want of use, our motions are not obedient to our will; and to supply this defect, we exert more strength and activity than are requisite. "It does not require strength; you need not use so much force; you need not take so much pains;" we frequently say to those who are making the first painful, awkward attempts, at some simple operation. Can any thing appear more easy than knitting, when we look at the dexterous, rapid motions of an experienced practitioner? But let a gentleman take up a lady's knittingneedles, and knitting appears to him, and to all the spectators, one of the most difficult and laborious operations imaginable. A lady who is learning to work with a tambour needle, puts her head down close to the tambour frame, the colour comes into her face, she strains her eyes, all her faculties are exerted, and perhaps she works at the rate of three links a minute. A week afterward, probably, practice has made the work perfectly easy; the same lady goes rapidly on with her work; she can talk and laugh, and perhaps even think, while she works. She has now discovered that a number of the motions, and a great portion of that attention which she thought necessary to this mighty operation, may be advantageously spared.

In a similar manner, in the exercise of our minds upon subjects that are new to us, we generally exert more attention than is necessary or serviceable, and we consequently soon fatigue ourselves without any advantage. Children, to whom many subjects are new, are often fatigued by these overstrained and misplaced efforts. In these circumstances, a tutor should relieve the attention by introducing indifferent subjects of conversation: he can, by showing no anxiety himself, either in his manner or countenance, relieve his pupil from any apprehension of his displeasure or of his contempt; he can represent that the object before them is not a matter of life and death; that if the child does not succeed in the first trials, he will not be disgraced in the opinion of any of his friends; that by perseverance he will certainly conquer the difficulty; that it is of little consequence whether he understands the thing in question today or to-morrow; these considerations will calm the

over-anxious pupil's agitation; and whether he succeed or not, he will not suffer such a degree of pain as to disgust him in his first attempts.

Besides the command which we, by this prudent management, obtain over the pupil's mind, we shall also prevent him from acquiring any of those awkward gestures and involuntary motions, which are sometimes practised to relieve the pain of attention.

Dr. Darwin observes, that when we experience any disagreeable sensations, we endeavour to procure ourselves temporary relief by motions of those muscles and limbs which are most habitually obedient to our will. This observation extends to mental as well as to bodily pain; thus persons in violent grief wring their hands and convulse their countenances; those who are subject to the petty, but acute miseries of false shame, endeavour to relieve themselves by awkward gestures and continual motions. A ploughboy, when he is brought into the presence of those whom he thinks his superiors, endeavours to relieve himself from the uneasy sensations of false shame, by twirling his hat upon his fingers, and by various uncouth gestures. Men who think a great deal, sometimes acquire habitual awkward gestures, to relieve the pain of intense thought.

When attention first becomes irksome to children, they mitigate the mental pain by wrinkling their brows, or they fidget and put themselves into strange attitudes. These odd motions, which at first are voluntary, after they have been frequently associated with certain states of mind, constantly recur involuntarily with those feelings or ideas with which they have been connected. For instance, a boy who has been used to buckle and unbuckle his shoe, when he repeats his lesson by rote, cannot repeat his lesson without performing this operation; it becomes a sort of artificial memory, which is necessary to prompt his recollective faculty. When children have a *variety* of tricks of this sort, they are of little consequence; but when they have acquired a few constant and habitual motions, while they think, or repeat, or listen, these should be attended to, and the habits should be broken, otherwise these young people will appear, when they grow up, awkward and ridiculous in their manners; and, what is worse, perhaps their thoughts and abilities will be too much in the power of external circumstances. Addison represents, with much humour,

the case of a poor man who had the habit of twirling a bit of thread round his finger; the thread was accidentally broken, and the orator stood mute.

We once saw a gentleman get up to speak in a public assembly, provided with a paper of notes written in pencil: during the exordium of his speech, he thumbed his notes with incessant agitation; when he looked at the paper, he found that the words were totally obliterated; he was obliged to apologize to his audience; and, after much hesitation, sat down abashed. A father would be sorry to see his son in such a predicament.

To prevent children from acquiring such awkward tricks while they are thinking, we should in the first place take care not to make them attend for too long a time together; then the pain of attention will not be so violent as to compel them to use these strange modes of relief. Bodily exercise should immediately follow that entire state of rest, in which our pupils ought to keep themselves while they attend. The first symptoms of any awkward trick should be watched; they are easily prevented by early care from becoming habitual. If any such tricks have been acquired, and if the pupil cannot exert his attention in common, unless certain contortions are permitted, we should attempt the cure either by sudden slight bodily pain, or by a total suspension of all the employments with which these bad habits are associated. If a boy could not read without swinging his head like a pendulum, we should rather prohibit him from reading for some time, than suffer him to grow up with this ridiculous habit. But in conversation, whenever opportunities occur of telling him any thing in which he is particularly interested, we should refuse to gratify his curiosity, unless he keep himself perfectly still. The excitement here would be sufficient to conquer the habit.

Whatever is connected with pain or pleasure, commands our attention; but to make this general observation useful in education, we must examine what degrees of stimulus are necessary for different pupils, and in different circumstances. We have formerly observed,* that it is not prudent early to use violent or continual stimulus, either of a painful or a pleasurable nature, to excite children to application; because we should, by an

* Chapter on Tasks.

intemperate use of these, weaken the mind, and because we may with a little patience obtain all we wish without these expedients. Besides these reasons, there is another potent argument against using violent motives to excite attention; such motives frequently disturb and dissipate the very attention which they attempt to fix. If a child be threatened with severe punishment, or flattered with the promise of some delicious reward, in order to induce his performance of any particular task, he desires instantly to perform the task; but this desire will not ensure his success: unless he have previously acquired the habit of voluntary exertion, he will not be able to turn his mind from his ardent wishes, even to the means of accomplishing them. He will be in the situation of Alnaschar in the Arabian tales, who, while he dreamed of his future grandeur, forgot his immediate business. The greater his hope or fear, the greater the difficulty of his employing himself.

To teach any new habit or art, we must not employ any alarming excitements: small, certain, regularly recurring motives, which interest, but which do not distract the mind, are evidently the best. The ancient inhabitants of Minorca were said to be the best slingers in the world; when they were children, every morning what they were to eat was slightly suspended from high poles, and they were obliged to throw down their breakfasts with their slings from the places where they were suspended, before they could satisfy their hunger. The motive seems to have been here well proportioned to the effect which was required; it could not be any great misfortune to a boy to go without his breakfast; but as this motive returned every morning, it became sufficiently serious to the hungry slingers.

It is impossible to explain this subject so as to be of use, without descending to minute particulars. When a mother says to her little daughter, as she places on the table before her a bunch of ripe cherries, "Tell me, my dear, how many cherries are there, and I will give them to you,"—the child's attention is fixed instantly; there is a sufficient motive; not a motive which excites any violent passions, but which raises just such a degree of hope as is necessary to produce attention. The little girl, if she knows from experience that her mother's promise will be kept, and that her own patience is likely to succeed, counts the cherries carefully, has her re-

ward, and upon the next similar trial she will, from this success, be still more disposed to exert her attention. The pleasure of eating cherries, associated with the pleasure of success, will balance the pain of a few moments' prolonged application, and by degrees the cherries may be withdrawn, the association of pleasure will remain. Objects or thoughts that have been associated with pleasure, retain the power of pleasing; as the needle touched by the loadstone acquires polarity, and retains it long after the loadstone is withdrawn.

Whenever attention is habitually raised by the power of association, we should be careful to withdraw all the excitements that were originally used, because these are now unnecessary; and, as we have formerly observed, the steady rule, with respect to stimulus, should be to give the least possible quantity that will produce the effect we want. Success is a great pleasure; as soon as children become sensible to this pleasure, that is to say, when they have tasted it two or three times, they will exert their attention merely with the hope of succeeding. We have seen a little boy of three years old, frowning with attention for several minutes together, while he was trying to clasp and unclasp a lady's bracelet; his whole soul was intent upon the business; he neither saw nor heard any thing else that passed in the room, though several people were talking, and some happened to be looking at him. The pleasure of success, when he clasped the bracelet, was quite sufficient; he looked for no praise, though he was perhaps pleased with the sympathy that was shown in his success. Sympathy is a better reward for young children in such circumstances than praise, because it does not excite vanity, and it is connected with benevolent feelings; besides, it is not so violent a stimulus as applause.

Instead of increasing excitements to produce attention, we may vary them, which will have just the same effect. When sympathy fails, try curiosity; when curiosity fails, try praise; when praise begins to lose its effect, try blame; and when you go back again to sympathy, you will find that, after this interval, it will have recovered all its original power. Doctor Darwin, who has the happy art of illustrating, from the most familiar circumstances in real life, the abstract theories of philosophy, gives us the following picturesque instance of the use of varying motives to prolong exertion.

"A little boy, who was tired of walking, begged of his papa to carry him. 'Here,' says the reverend doctor, 'ride upon my gold-headed cane;' and the pleased child, putting it between his legs, galloped away with delight. Here the aid of another sensorial power, that of pleasurable sensation, superadded power to exhausted volition, which could otherwise only have been excited by additional pain, as by the lash of slavery."*

Alexander the Great one day saw a poor man carrying upon his shoulders a heavy load of silver for the royal camp: the man tottered under his burden, and was ready to give up the point from fatigue. "Hold on, friend, the rest of the way, and carry it to your own tent, for it is yours," said Alexander.

There are some people who have the power of exciting others to great mental exertions; not by the promise of specific rewards, or by the threats of any punishment, but by the ardent ambition which they inspire; by the high value which is set upon their love and esteem. When we have formed a high opinion of a friend, his approbation becomes necessary to our own self-complacency, and we think no labour too great to satisfy our attachment. Our exertions are not fatiguing, because they are associated with all the pleasurable sensations of affection, self-complacency, benevolence, and liberty. These feelings, in youth, produce all the virtuous enthusiasm characteristic of great minds; even childhood is capable of it in some degree, as those parents well know who have ever enjoyed the attachment of a grateful, affectionate child. Those who neglect to cultivate the affections of their pupils, will never be able to excite them to "noble ends" by "noble means." Theirs will be the dominion of fear, from which reason will emancipate herself, and from which pride will yet more certainly revolt.

If Henry the Fourth of France had been reduced, like Dionysius the tyrant of Syracuse, to earn his bread as a schoolmaster, what a different preceptor he would probably have made! Dionysius must have been hated by his scholars as much as by his subjects; for it is said that "he† practised upon children that tyranny which he could no longer exercise over men."

The embassador who found Henry the Fourth playing

* Zoonomia, vol. i. page 435. † Cicero.

upon the carpet with his children, would probably have trusted his own children, if he had any, to the care of such an affectionate tutor.

Henry the Fourth would have attached his pupils while he instructed them; they would have exerted themselves, because they could not have been happy without his esteem. Henry's courtiers, or rather his friends, for though he was a king he had friends, sometimes expressed surprise at their own disinterestedness: "This king pays us with words," said they, "and yet we are satisfied!" Sully, when he was only Baron de Rosny, and before he had any hopes of being a duke, was once in a passion with the king his master, and half resolved to leave him: "But I don't know how it was," says the honest minister; "with all his faults, there is something about Henry which I found I could not leave; and when I met him again, a few words made me forget all my causes of discontent."

Children are more easily attached than courtiers, and full as easily rewarded. When once this generous desire of affection and esteem is raised in the mind, their exertions seem to be universal and spontaneous: children are then no longer like machines, which require to be wound up regularly to perform certain revolutions; they are animated with a living principle, which directs all that it inspires.

We have endeavoured to point out the general excitements and the general precautions to be used in cultivating the power of attention; it may be expected that we should more particularly apply these to the characters of different pupils. We shall not here examine whether there be any original difference of character or intellect, because this would lead into a wide theoretical discussion; a difference in the temper and talents of children early appears, and some practical remarks may be of service to correct defects, or to improve abilities, whether we suppose them to be natural or acquired. The first differences which a preceptor observes between his pupils, when he begins to teach them, are perhaps scarcely marked so strongly as to strike the careless spectator; but in a few years these varieties are apparent to every eye. This seems to prove, that during the interval the power of education has operated strongly to increase the original propensities. The quick and slow, the timid and presumptuous, should be early instructed

so as to correct as much as possible their several defects.

The manner in which children are first instructed must tend either to increase or diminish their timidity or their confidence in themselves; to encourage them to undertake great things, or to rest content with limited acquirements. Young people, who have found from experience that they cannot remember or understand one half of what is forced upon their attention, become extremely diffident of their own capacity, and they will not undertake as much even as they are able to perform. With timid tempers, we should therefore begin, by expecting but little from each effort; but whatever is attempted, should be certainly within their attainment; success will encourage the most stupid humility. It should be carefully pointed out to diffident children, that attentive patience can do as much as quickness of intellect. If they perceive that time makes all the difference between the quick and the slow, they will be induced to persevere. The transition of attention from one subject to another is difficult to some children, to others it is easy. If all be expected to do the same things in an equal period of time, the slow will absolutely give up the competition; but, on the contrary, if they are allowed time, they will accomplish their purposes. We have been confirmed in our belief of this doctrine by experiments. The same problems have been frequently given to children of different degrees of quickness; and though some succeeded much more quickly than others, all the individuals in the family have persevered till they have solved the questions; and the timid seem to have been more encouraged by this practical demonstration of the infallibility of persevering attention, than by any other methods which have been tried. When, after a number of small successful trials, they have acquired some share of confidence in themselves, when they are certain of the possibility of their performing any given operations, we may then press them a little as to velocity. When they are well acquainted with any set of ideas, we may urge them to quick transition of attention from one to another; but if we insist upon this rapidity of transition before they are thoroughly acquainted with each idea in the assemblage, we shall only increase their timidity and hesitation; we shall confound their understandings, and depress their ambition.

It is of consequence to distinguish between slow and sluggish attention. Sometimes children appear stupid and heavy, when they are absolutely exhausted by too great efforts of attention; at other times, they have something like the same dulness of aspect, before they have had any thing to fatigue them, merely from their not having yet awakened themselves to business. We must be certain of our pupil's state of mind before we proceed. If he be incapacitated from fatigue, let him rest; if he be torpid, rouse him with a rattling peal of thunder: but be sure that you have not, as it has been said of Jupiter,* recourse to your thunder only when you are in the wrong. Some preceptors scold when they cannot explain, and grow angry in proportion to the fatigue they see expressed in the countenance of their unhappy pupils. If a timid child foresees that an explanation will probably end in a philipic, he cannot fix his attention; he is anticipating the evil of your anger, instead of listening to your demonstrations; and he says, "Yes, yes, I see, I know, I understand," with trembling eagerness, while, through the mist and confusion of his fears, he can scarcely see or hear, much less understand any thing. If you mistake the confusion and fatigue of terror for inattention or indolence, and press your pupil to further exertions, you will confirm, instead of curing, his stupidity. You must diminish his fear before you can increase his attention. With children who are thus, from timid anxiety to please, disposed to exert their faculties too much, it is obvious that no excitation should be used; but every playful, every affectionate means should be employed to dissipate their apprehensions.

It is more difficult to manage with those who have sluggish, than with those who have timid attention. Indolent children have not usually so lively a taste for pleasure as others have; they do not seem to hear or see so quickly; they are content with a little enjoyment; they have scarcely any ambition; they seem to prefer ease to all sorts of glory; they have little voluntary exertion; and the pain of attention is to them so great, that they would preferably endure the pain of shame, and of all the accumulated punishments which are commonly devised for them by the vengeance of

* Lucian.

their exasperated tutors. Locke notices this listless, lazy humour in children; he classes it under the head "Sauntering;" and he divides saunterers into two species: those who saunter only at their books and tasks, and those who saunter at play and every thing. The book-saunterers have only an acute, the others have a chronic disease; the one is easily cured, the other disease will cost more time and pains.

If, by some unlucky management, a vivacious child acquire a dislike to literary application, he may appear at his books with all the stupid apathy of a dunce. In this state of literary dereliction, we should not force books and tasks of any sort upon him; we should rather watch him when he is eager at amusements of his own selection, observe to what his attention turns, and cultivate his attention upon that subject, whatever it may be. He may be led to think, and to acquire knowledge upon a variety of subjects, without sitting down to read; and thus he may form habits of attention and application, which will be associated with pleasure. When he returns to books, he will find that he understands a variety of things in them which before appeared incomprehensible; they will "give him back the image of his mind," and he will like them as he likes pictures.

As long as a child shows energy upon any occasion, there is hope. If he "lend his little soul"* to whipping a top, there is no danger of his being a dunce. When Alcibiades was a child, he was one day playing at dice with other boys in the street; a loaded wagon came up just as it was his time to throw. At first he called to the driver to stop, but the wagoner would not stop his horses; all the boys, except Alcibiades, ran away; but Alcibiades threw himself upon his face, directly before the horses, and stretching himself out, bid the wagoner drive on if he pleased. Perhaps, at the time when he showed this energy about a game at dice, Alcibiades might have been a saunterer at his book, and a foolish schoolmaster might have made him a dunce.

Locke advises, that children who are too much addicted to what is called play, should be surfeited with it, that they may return to business with a better appetite. But this advice supposes that play has been previously interdicted, or that it is something pernicious: we have

* "And lends his little soul at every stroke."—VIRGIL.

endeavoured to show that play is nothing but a change of employment, and that the attention may be exercised advantageously upon a variety of subjects which are not called Tasks.*

With those who show chronic listlessness, Locke advises that we should use every sort of stimulus; praise, amusement, fine clothes, eating; any thing that will make them bestir themselves. He argues, that as there appears a deficiency of vigour, we have no reason to fear excess of appetite for any of these things; nay, further still, where none of these will act, he advises compulsory bodily exercise. If we cannot, he says, make sure of the invisible attention of the mind, we may at least get something done, prevent the habit of total idleness, and perhaps make the children desire to exchange labour of body for labour of mind. These expedients will, we fear, be found rather palliative than effectual; if, by forcing children to bodily exercise, that become disagreeable, they may prefer labour of the mind; but in making this exchange or bargain, they are sensible that they choose the least of two evils. The evil of application is diminished only by comparison in their estimation; they will avoid it whenever they are at liberty. The love of eating, of fine clothes, &c., if they stimulate a slothful child, must be the ultimate object of his exertions; he will consider the performance of his task merely as a painful condition on his part. Still the association of pain with literature continues; it is then impossible that he should love it. There is no active principle within him, no desire for knowledge excited; his attention is forced; it ceases the moment the external force is withdrawn. He drudges to earn his cream-bowl duly set, but he will stretch his lubber length the moment his task is done.

There is another class of children opposed to saunterers, whom we may denominate volatile geniuses. They show a vast deal of quickness and vivacity; they understand almost before a tutor can put his ideas into words; they observe a variety of objects, but they do not connect their observations; and the very rapidity with which they seize an explanation, prevents them from thoroughly comprehending it; they are easily disturbed by external objects when they are thinking. As

* See Chapter II. on Tasks.

they have great sensibility, their associations are strong and various; their thoughts branch off into a thousand beautiful, but useless ramifications. While you are attempting to instruct them upon one subject, they are inventing, perhaps, upon another; or they are following a train of ideas suggested by something you have said, but foreign to your business. They are more pleased with the discovery of resemblances, than with discrimination of difference; the one costs them more time and attention than the other: they are apt to say witty things, and to strike out sparks of invention; but they have not commonly the patience to form exact judgments, or to bring their first inventions to perfection. When they begin the race, everybody expects that they should outstrip all competitors; but it is often seen that slower rivals reach the goal before them. The predictions formed of pupils of this temperament vary much, according to the characters of their tutors. A slow man is provoked by their dissipated vivacity, and, unable to catch or fix their attention, prognosticates that they will never have sufficient application to learn any thing. This prophecy, under certain tuition, would probably be accomplished. The want of sympathy between a slow tutor and a quick child, is a great disadvantage to both; each insists upon going his own pace and his own way, and these ways are perhaps diametrically opposite. Even in forming a judgment of the child's attention, the tutor, who is not acquainted with the manner in which his pupil goes to work, is liable to frequent mistakes. Children are sometimes suspected of not having listened to what has been said to them, when they cannot exactly repeat the words that they have heard; they often ask questions and make observations which seem quite foreign to the present business; but this is not always a proof that their minds are absent, or that their attention is dissipated. Their answers often appear to be far from the point, because they suppress their intermediate ideas, and give only the result of their thoughts. This may be inconvenient to those who teach them; but this habit sufficiently proves that these children are not deficient in attention. To cure them of the fault which they have, we should not accuse them falsely of another. But it may be questioned whether this be a fault: it is absolutely necessary, in many processes of the mind, to suppress a number of

intermediate ideas. Life, if this were not practised, would be too short for those who think, and much too short for those who speak. When somebody asked Pyrrhus which of two musicians he liked the best, he answered, "Polysperchon is the best general." This would appear to be the absurd answer of an absent person, or of a fool, if we did not consider the ideas that are implied, as well as those which are expressed.

March 5th, 1796. To-day, at dinner, a lady observed that Nicholson, Williamson, Jackson, &c., were names which originally meant the sons of Nicholas, William, Jack, &c. A boy who was present, H——, added, with a very grave face, as soon as she had finished speaking, "Yes, ma'am, Tydides." His mother asked him what he could mean by this absent speech? H—— calmly repeated, "Ma'am, yes; because I think it is like Tydides." His brother S—— eagerly interposed, to supply the intermediate ideas; "Yes, indeed, mother," cried he, "H—— is not absent, because *des*, in Greek, means *the son of* (the race of). Tydides is the son of Tydeus, as Jackson is the son of Jack." In this instance, H—— was not absent, though he did not make use of a sufficient number of words to explain his ideas.

August, 1796, L——, when he returned home, after some months' absence, entertained his brothers and sisters with a new play, which he had learned at Edinburgh. He told them, that when he struck the table with his hand, every person present was instantaneously to remain fixed in the attitudes in which they should be when the blow was given. The attitudes in which some of the little company were fixed, occasioned much diversion; but in speaking of this new play afterward, they had no name for it. While they were thinking of a name for it, H—— exclaimed, "The Gorgon!" It was immediately agreed that this was a good name for the play; and H——, upon this occasion, was perfectly intelligible, without expressing all the intermediate ideas.

Good judges form an accurate estimate of the abilities of those who converse with them, by what they omit, as well as by what they say. If any one can show that he also has been in Arcadia, he is sure of being well received, without producing minutes of his journey. In the same manner we should judge of children; if they arrive at certain conclusions in reasoning, we may be

satisfied that they have taken all the necessary previous steps. We need not question their attention upon subjects where they give proofs of invention; they must have remembered well, or they could not invent; they must have attended well, or they could not have remembered. Nothing wearies a quick child more than to be forced slowly to retrace his own thoughts, and to repeat the words of a discourse to prove that he has listened to it. A tutor who is slow in understanding the ideas of his vivacious pupil, gives him so much trouble and pain, that he grows silent, from finding it not worth while to speak. It is for this reason that children appear stupid and silent with some people, and sprightly and talkative with others. Those who hope to talk to children with any effect, must, as Rousseau observes, be able to hear as well as to speak. M. de Segrais, who was deaf, was much in the right to decline being preceptor to the Duke de Maine. A deaf preceptor would certainly make a child dumb.

To win the attention of vivacious children, we must sometimes follow them in their zigzag course, and even press them to the end of their own train of thought. They will be content when they have obtained a full hearing; then they will have leisure to discover that what they were in such haste to utter, was not so well worth saying as they imagined; that their bright ideas often, when steadily examined by themselves, fade into absurdities.

"Where does this path lead to? Can't we get over this stile? May I *only* go into this wood?" exclaims an active child, when he is taken out to walk. Every path appears more delightful than the straight road; but let him try the paths, they will perhaps end in disappointment, and then his imagination will be corrected. Let him try his own experiments, then he will be ready to try yours; and if yours succeed better than his own, you will secure his confidence. After a child has talked on for some time, till he comes to the end of his ideas, then he will perhaps listen to what you have to say; and if he finds it better than what he has been saying himself, he will voluntarily give you his attention the next time you begin to speak.

Vivacious children are peculiarly susceptible of blame and praise; we have, therefore, great power over their attachment, if we manage these excitements properly.

These children should not be praised for their *happy hits*; their first* glances should not be extolled; but, on the contrary, they should be rewarded with universal approbation when they give proofs of patient industry, when they bring any thing to perfection. No one can bring any thing to perfection without long-continued attention; and industry and perseverance presuppose attention. Proofs of any of these qualities may therefore satisfy us as to the pupil's capacity and habits of attention; we need not stand by to see the attention exercised; the things produced are sufficient evidence. Buffon tells us that he wrote his Epoques de la Nature over eighteen times before he could perfect it to his taste. The high finish of his composition is sufficient evidence to intelligent readers, that he exerted long-continued attention upon the work; they do not require to have the eighteen copies produced.

Bacon supposes, that for every disease of the mind, specific remedies might be found in appropriate studies and exercises. Thus, for "birdwitted" children he prescribes the study of mathematics, because, in mathematical studies, the attention must be fixed; the least intermission of thought breaks the whole chain of reasoning, their labour is lost, and they must begin their demonstration again. This principle is excellent; but to apply it advantageously, we should choose moments when a mathematical demonstration is interesting to children, else we have not sufficient motive to excite them to commence the demonstration; they will perceive that they lose all their labour if their attention is interrupted; but how shall we make them begin to attend? There are a variety of subjects which are interesting to children, to which we may apply Bacon's principle; for instance, a child is eager to hear a story which you are going to tell him; you may exercise his attention by your manner of telling this story; you may employ with advantage the beautiful speech called *suspension:* but you must take care, that the hope which is long deferred be at last gratified. The young critics will look back, when your story is finished, and will examine whether their attention has been wasted, or whether all the particulars to which it was directed were essential. Though in amusing stories we recommend the figure

* Apercues.

called suspension,* we do not recommend its use in explanations. Our explanations should be put into as few words as possible: the closer the connexion of ideas, the better. When we say, allow time to understand your explanations, we mean, allow time between each idea; do not fill up the interval with words. Never, by way of gaining time, pay in sixpences; this is the last resource of a bankrupt.

We formerly observed that a preceptor, in his first lessons on any new subject, must submit to the drudgery of repeating his terms and his reasoning, until these are sufficiently familiar to his pupils. He must, however, proportion the number of his repetitions to the temper and habits of his pupils, else he will weary, instead of strengthening the attention. When a thing is clear, let him never try to make it clearer; when a thing is understood, not a word more of exemplification should be added. To mark precisely the moment when the pupil understands what is said, the moment when he is master of the necessary ideas, and, consequently, the moment when repetition should cease, is, perhaps, the most difficult thing in the art of teaching. The countenance, the eye, the voice, and manner of the pupil, mark this instant to an observing preceptor; but a preceptor who is absorbed in his own ideas, will never think of looking in his pupil's face; he will go on with his routine of explanation, while his once lively, attentive pupil, exhibits opposite to him the picture of stupified fatigue. Quick, intelligent children, who have frequently found that lessons are reiterated by a patient but injudicious tutor, will learn a careless mode of listening at intervals; they will say to themselves, "Oh, I shall hear this again!" And if any stray thought comes across their minds, they will not scruple to amuse themselves, and will afterward ask for a repetition of the words or ideas which they missed during this excursion of fancy. When they hear the warning advertisement of "certainly for the last time this season," they will deem it time enough to attend to the performance. To cure them of this presumption in favour of our patience, and of their own superlative quickness, we should press that quickness to its utmost speed. Whenever we call for their attention, let it be on subjects highly interest-

* Deinology.

ing or amusing; and let us give them but just sufficient time with their fullest exertion to catch our words and ideas. As these quick gentlemen are proud of their rapidity of apprehension, this method will probably secure their attention; they will dread the disgrace of not understanding what is said, and they will feel that they cannot understand unless they exert prompt, vigorous, unremitted attention.

The Dutchess of Kingston used to complain that she could never acquire any knowledge, because she never could meet with anybody who could teach her any thing "in two words." Her grace felt the same sort of impatience which was expressed by the tyrant who expected to find a royal road to geometry.

Those who believe themselves endowed with genius, expect to find a royal road in every science, shorter and less laborious than the beaten paths of industry. Their expectations are usually in proportion to their ignorance; they see to the summit only of one hill, and they do not suspect the Alps that will arise as they advance: but as children become less presumptuous, as they acquire more knowledge, we may bear with their juvenile impatience, while we take measures to enlarge continually their sphere of information. We should not, however, humour the attention of young people, by teaching them always in the mode which we know suits their temper best. Vivacious pupils should, from time to time, be accustomed to an exact enumeration of particulars; and we should take opportunities to convince them, that an orderly connexion of proofs, and a minute observation of apparent trifles, are requisite to produce the lively descriptions, great discoveries, and happy inventions, which pupils of this disposition are ever prone to admire with enthusiasm. They will learn not to pass over *old* things, when they perceive that these may lead to something *new;* and they will even submit to sober attention, when they feel that this is necessary even to the rapidity of genius. In the "Curiosities of Literature," there has been judiciously preserved a curious instance of literary patience; the rough draught of that beautiful passage in Pope's translation of the Iliad which describes the parting of Hector and Andromache. The lines are in Pope's handwriting, and his numerous corrections appear; the lines which seem to the reader to have been struck off at a single happy stroke, are

proved to have been touched and retouched with the indefatigable attention of a great writer. The fragment, with all its climax of corrections, was shown to a young vivacious poet of nine years old, as a practical lesson, to prove the necessity of patience to arrive at perfection. Similar examples, from real life, should be produced to young people at proper times; the testimony of men of acknowledged abilities, of men whom they have admired for genius, will come with peculiar force in favour of application. Parents well acquainted with literature, cannot be at a loss to find apposite illustrations. The Life of Franklin is an excellent example of persevering industry; the variations in different editions of Voltaire's dramatic poetry, and in Pope's works, are worth examining. All Sir Joshua Reynolds's eloquent academical discourses enforce the doctrine of patience; when he wants to prove to painters the value of continual energetic attention, he quotes from Livy the character of Philopœmen, one of the ablest generals of antiquity. So certain it is, that the same principle pervades all superior minds: whatever may be their pursuits, attention is the avowed primary cause of their success. These examples from the dead should be well supported by examples from among the living. In common life, occurrences can frequently be pointed out, in which attention and application are amply rewarded with success.

It will encourage those who are interested in education, to observe, that two of the most difficult exercises of the mind can, by practice, be rendered familiar, even by persons whom we do not consider as possessed of superior talents. Abstraction and transition—abstraction, the power of withdrawing the attention from all external objects, and concentrating it upon some particular set of ideas, we admire as one of the most difficult exercises of the philosopher. Abstraction was formerly considered as such a difficult and painful operation, that it required perfect silence and solitude; many ancient philosophers quarrelled with their senses, and shut themselves up in caves, to secure their attention from the distraction caused by external objects. But modern* philosophers have discovered, that neither caves nor lamps are essential to the full and successful

* See Condillac, Art de Penser.

exercise of their mental powers. Persons of ordinary abilities, tradesmen and shopkeepers, in the midst of the tumult of a public city, in the noise of rumbling carts and rattling carriages, amid the voices of a multitude of people talking upon various subjects, amid the provoking interruptions of continual questions and answers, and in the broad glare of a hot sun, can command and abstract their attention so far as to calculate yards, ells, and nails, to cast up long sums in addition right to a farthing, and to make out multifarious bills with quick and unerring precision. In almost all the dining-houses at Vienna, as a late traveller* informs us, "a bill of fare containing a vast collection of dishes is written out, and the prices are affixed to each article. As the people of Vienna are fond of variety, the calculation at the conclusion of a repast would appear somewhat embarrassing; this, however, is done by mechanical habit with great speed; the custom is, for the party who has dined to name the dishes, and the quantity of bread and wine. The keller, who attends on this occasion, follows every article you name with the sum, which this adds to the calculation, and the whole is performed, to whatever amount, without ink or paper. It is curious to hear this ceremony, which is muttered with great gravity, yet performed with accuracy and despatch."

We coolly observe, when we read these things, "Yes, this is all habit; anybody who had used himself to it might do the same things." Yet the very same power of abstracting the attention, when employed upon scientific and literary subjects, would excite our astonishment; and we should, perhaps, immediately attribute it to superior original genius. We may surely educate children to this habit of abstracting the attention, which we allow depends entirely upon practice. When we are very much interested upon any subject, we attend to it exclusively, and, without any effort, we surmount all petty interposing interruptions. When we are reading an interesting book, twenty people may converse round about us without our hearing one word that they say; when we are in a crowded playhouse, the moment we become interested in the play the audience vanish from our sight, and in the midst of various noises, we hear only the voices of the actors.

* Mr. Owen.

In the same manner, children, by their eager looks and their unaffected absence to all external circumstances, show when they are thoroughly interested by any story that is told with eloquence suited to their age. When we would teach them to attend in the midst of noise and interruptions, we should begin by talking to them about things which we are sure will please them; by degrees we may speak on less captivating subjects, when we perceive that their habit of beginning to listen with an expectation of pleasure is formed. Whenever a child happens to be intent upon any favourite amusement, or when he is reading any very entertaining book, we may increase the busy hum around him, we may make what bustle we please, he will probably continue attentive; it is useful therefore to give him such amusements and such books when there is a noise or bustle in the room, because then he will learn to disregard all interruptions; and when this habit is formed, he may even read less amusing books in the same company, without being interrupted by the usual noises.

The power of abstracting our attention is universally allowed to be necessary to the successful labour of the understanding; but we may further observe, that this abstraction is characteristic in some cases of heroism as well as of genius. Charles the Twelfth and Archimedes were very different men; yet both, in similar circumstances, gave similar proofs of their uncommon power of abstracting their attention. "What has the bomb to do with what you are writing to Sweden," said the hero to his pale secretary when a bomb burst through the roof of his apartment, and he continued to dictate his letter. Archimedes went on with his demonstration in the midst of a siege, and when a brutal soldier entered with a drawn sword, the philosopher only begged he might solve his problem before he were put to death.

Presence of mind in danger, which is usually supposed to depend upon our quick perception of all the present circumstances, frequently demands a total abstraction of our thoughts. In danger, fear is the motive which excites our exertions; but from all the ideas that fear naturally suggests, we must abstract our attention, or we shall not act with courage or prudence. In proportion to the violence of our terror, our voluntary exertion must be great to withdraw our thoughts from the

present danger, and to recollect the means of escape. In some cases, where the danger has been associated with the use of certain methods of escape, we use these without deliberation, and consequently without any effort of attention; as when we see any thing catch fire, we instantly throw water upon the flames to extinguish them. But in new situations, where we have no mechanical courage, we must exert much voluntary, quick, abstract attention, to escape from danger.

When Lee, the poet, was confined in Bedlam, a friend went to visit him; and finding that he could converse reasonably, or at least reasonably for a poet, imagined that Lee was cured of his madness. The poet offered to show him Bedlam. They went over this melancholy, medical prison, Lee moralizing philosophically enough all the time to keep his companion perfectly at ease. At length they ascended together to the top of the building; and, as they were both looking down from the perilous height, Lee seized his friend by the arm; "Let us immortalize ourselves!" he exclaimed; "Let us take this leap. We'll jump down together this instant."—"Any man could jump down," said his friend, coolly; "we should not immortalize ourselves by that leap; but let us go down, and try if we can jump up again." The madman, struck with the idea of a more astonishing leap than that which he had himself proposed, yielded to this new impulse, and his friend rejoiced to see him run down stairs full of a new project for securing immortality.

Lee's friend, upon this occasion, showed rather absence than presence of mind: before he could have invented the happy answer that saved his life, he must have abstracted his mind from the passion of fear; he must have rapidly turned his attention upon a variety of ideas unconnected by any former associations with the exciting motive—falling from a height—fractured sculls—certain death—impossibility of reasoning or wrestling with a madman. This was the train of thoughts which we might naturally expect to arise in such a situation, but from all these the man of presence of mind turned away his attention; he must have directed his thoughts in a contrary line: first, he must have thought of the means of saving himself, of some argument likely to persuade a madman, of some argument peculiarly suited to Lee's imagination, and applicable to his situation; he must at this moment have considered

that alarming situation without thinking of his fears; for the interval in which all these ideas passed in his mind must have been so short, that he could not have had leisure to combat fear; if any of the ideas associated with that passion had interrupted his reasonings, he would not have invented his answer in time to have saved his life.

We cannot foresee on what occasions presence of mind may be wanted, but we may, by education, give that general command of abstract attention, which is essential to its exercise in all circumstances.

Transition of thought, the power of turning attention quickly to different subjects or employments, is another of those mental habits, which in some cases we call genius, and which in others we perceive depends entirely upon practice. A number of trials in one newspaper, upon a variety of unconnected subjects, once struck our eye, and we saw the name of a celebrated lawyer* as counsel in each cause. We could not help feeling involuntary admiration at that versatility of genius, which could pass from a fractional calculation about a London chaldron of coals, to the Jamaica laws of insurance; from the bargains of a citizen, to the divorce of a fine lady; from pathos to argument; from arithmetic to wit; from cross-examination to eloquence. For a moment we forgot our sober principles, and ascribed all this versatility of mind to natural genius; but upon reflection we recurred to the belief, that this dexterity of intellect was not bestowed by nature. We observe in men who have no pretensions to genius, similar versatility of mind as to their usual employments. The daily occupations of Mr. Elwes's huntsman were as various and incongruous, and required as quick transitions of attention, as any that can well be imagined.

"At† four o'clock he milked the cows; then got breakfast for Mr. Elwes and friends; then slipping on a green coat, he hurried into the stable, saddled the horses, got the hounds out of the kennel, and away they went into the field. After the fatigues of hunting, he *refreshed* himself, by rubbing down two or three horses as quickly as he could; then running into the house to lay the cloth, and wait at dinner; then hurrying again into the

* Mr. Erskine—The Star.

† See Life of John Elwes, Esq. by T. Topham.

stable to feed the horses, diversified with an interlude of the cows again to milk, the dogs to feed, and eight hunters to litter down for the night." Mr. Elwes used to call this huntsman an idle dog, who wanted to be paid for doing nothing!

We do not mean to require any such rapid daily transitions in the exercise of attention from our pupils; but we think that much may be done to improve versatility of mind, by a judicious arrangement of their occupations. When we are tired of smelling a rose, we can smell a carnation with pleasure; and when the sense of smell is fatigued, yet we can look at the beautiful colours with delight. When we are tired of thinking upon one subject, we can attend to another; when our memory is fatigued, the exercise of the imagination entertains us; and when we are weary of reasoning, we can amuse ourselves with wit and humour. Men who have attended much to the cultivation of their mind, seem to have felt all this, and they have kept some subordinate taste as a refreshment after their labours. Descartes went from the system of the world to his flower-garden; Galileo used to read Ariosto; and the metaphysical Dr. Clarke recovered himself from abstraction by jumping over chairs and tables. The learned and indefatigable Chancellor d'Aguesseau declared, that change of employment was the only recreation he ever knew. Even Montaigne, who found his recreation in playing with his cat, educated himself better than those are educated who go from intense study to complete idleness. It has been very wisely recommended by Mr. Locke, that young people should early be taught some mechanical employment, or some agreeable art, to which they may recur for relief when they are tired by mental application.*

Doctor Darwin supposes that "animal motions, or configurations of the organs of sense, constitute our ideas.† The fatigue, he observes, that follows a continued attention of the mind to one object, is relieved by changing the subject of our thoughts, as the continued movement of one limb is relieved by moving another in its stead." Dr. Darwin has further suggested a tempting subject of experiment in his theory of ocular spec-

* See Chapter on Toys.
† Zoonomia, vol. i. p. 21, 24.

tra, to which we refer ingenious preceptors. Many useful experiments in education might be tried upon the principles which are there suggested. We dare not here trust ourselves to speculate upon this subject, because we are not at present provided with a sufficient number of facts to apply our theory to practice. If we could exactly discover how to arrange mental employments so as to induce actions in the antagonist faculties of the mind, we might relieve it from fatigue in the same manner as the eye is relieved by change of colour. By pursuing this idea, might we not hope to cultivate the general power of attention to a degree of perfection hitherto unknown?

We have endeavoured to show how, by different arrangements and proper excitations, a preceptor may acquire that command over the attention of his pupils, which is absolutely essential to successful instruction; but we must recollect, that when the years commonly devoted to education are over, when young people are no longer under the care of a preceptor, they will continue to feel the advantages of a command of attention, whenever they mix in the active business of life, or whenever they apply to any profession, to literature, or science. Their attention must now be entirely voluntary; they will have no tutor to excite them to exertion, no nice habitual arrangements to assist them in their daily occupations. It is of consequence, therefore, that we should substitute the power of voluntary, for the habit of associated attention. With young children we depend upon particular associations of place, time, and manner; upon different sorts of excitement, to produce habits of employment: but as our pupils advance in their education, all these temporary excitements should be withdrawn. Some large, but distant object, some pursuit which is not to be rewarded with immediate praise, but rather with permanent advantage and esteem, should be held out to the ambition of youth. All the arrangements should be left to the pupil himself; all the difficulties should be surmounted by his own industry, and the interest he takes in his own success and improvement, will now probably be a sufficient stimulus; his preceptor will now rather be his partner than his master, he should rather share the labour than attempt to direct it; this species of sympathy in study diminishes the pain of attention, and gives an agreeable

interest even in the most tiresome researches. When a young man perceives that his preceptor becomes in this manner the companion of his exertions, he loses all suspicion that he is compelled to mental labour; it is improper to say *loses*, for in a good education this suspicion need not ever be created: he discovers, we should rather say, that all the habits of attention which he has acquired, are those which are useful to men as well as to children; and he feels the advantage of his cultivated powers on every fresh occasion. He will perceive, that young men who have been ill educated, cannot, by any motive, command their vigorous attention, and he will feel the cause of his own superiority, when he comes to any trial of skill with inattentive *men of genius*.

One of the arguments which Bayle uses, to prove that fortune has a greater influence than prudence in the affairs of men, is founded upon the common observation, that men of the best abilities cannot frequently recollect, in urgent circumstances, what they have said or done; the things occur to them perhaps a moment after they are past. The fact seems to be, that they could not, in the proper moment, command their attention; but this we should attribute to the want of prudence in their early education. Thus, Bayle's argument does not, in this point of view, prove any thing in favour of fortune. Those who can best command their attention, in the greatest variety of circumstances, have the most useful abilities; without this command of mind, men of genius, as they are called, are hopeless beings; with it, persons of inferior capacity become valuable. Addison trembled and doubted, and doubted and trembled, when he was to write a common official paper; and it is said, that he was absolutely obliged to resign his place, because he could not decide in time whether he should write a *that* or a *which*. No business could have been transacted by such an imbecile minister.

To substitute voluntary for associated attention, we may withdraw some of the usually associated circumstances, and increase the excitement; and we may afterward accustom the pupil to act from the hope of distant pleasures. Unless children can be actuated by the view of future distant advantage, they cannot be capable of long-continued application. We shall endeavour to explain how the value of distant pleasures can be increased,

and made to act with sufficient force upon the mind, when we hereafter speak of judgment and of imagination.

It has been observed, that persons of wit and judgment have perhaps originally the same powers, and that the difference in their characters arises from their habits of attention, and the different class of objects to which they have turned their thoughts. The manner in which we are first taught to observe, and to reason, must in the first years of life decide these habits. There are two methods of teaching: one which ascends from particular facts to general principles; the other which descends from the general principles to particular facts; one which builds up, another which takes to pieces; the synthetic and the analytic method. The words analysis and synthesis are frequently misapplied, and it is difficult to write or to speak long about these methods without confounding them: in learning or in teaching we often use them alternately. We first observe particulars; then form some general idea of classification; then descend again to new particulars, to observe whether they correspond with our principle.

Children acquire knowledge, and their attention alternates from particular to general ideas, exactly in the same manner. It has been remarked, that men who have begun by forming suppositions, are inclined to adapt and to compress their consequent observations to the measure of their theories; they have been negligent in collecting facts, and have not condescended to try experiments. This disposition of mind, during a long period of time, retarded improvement, and knowledge was confined to a few peremptory maxims and exclusive principles. The necessity of collecting facts, and of trying experiments, was at length perceived; and in all the sciences this mode has lately prevailed; consequently, we have now on many subjects a treasure of accumulated facts. We are, in educating children, to put them in possession of all this knowledge; and a judicious preceptor will wish to know, not only how these facts can be crammed speedily into his pupil's memory, but what order of presenting them will be most advantageous to the understanding; he will desire to cultivate his pupil's faculties, that he may acquire new facts, and make new observations after all the old facts have been arranged in his mind.

By a judicious arrangement of past experiments, and by the rejection of what are useless, an able instructer can show, in a small compass, what it has cost the labour of ages to accumulate; he may teach in a few hours what the most ingenious pupil, left to his own random efforts, could not have learned in many years. It would take up as much time to go over all the steps which have been made in any science, as it originally cost the first discoverers. Simply to repeat all the fruitless experiments which have been made in chymistry, for instance, would probably employ the longest life that ever was devoted to science; nor would the individual have got one step forwarder; he would die, and with him his recapitulated knowledge; neither he nor the world would be the better for it. It is our business to save children all this useless labour, and all this waste of the power of attention. A pupil who is properly instructed, with the same quantity of attention, learns, perhaps, a hundred times as much in the same time, as he could acquire under the tuition of a learned preceptor ignorant in the art of teaching.

The analytic and synthetic methods of instruction will both be found useful when judiciously employed. Where the enumeration of particulars fatigues the attention, we should, in teaching any science, begin by stating the general principles, and afterward produce only the facts essential to their illustration and proof. But wherever we have not accumulated a sufficient number of facts to be accurately certain of any general principle, we must, however tedious the task, enumerate all the facts that are known, and warn the pupil of the imperfect state of the science. All the facts must, in this case, be stored up with scrupulous accuracy; we cannot determine which are unimportant, and which may prove essentially useful; this can be decided only by future experiments. By thus stating honestly to our pupils the extent of our ignorance, as well as the extent of our knowledge; by thus directing attention to the imperfections of science, rather than to the study of theories, we shall avoid the just reproaches which have been thrown upon the dogmatic vanity of learned preceptors.

"For as knowledges are now," says Bacon, "there is a kind of contract of error between the deliverer and receiver; for he that delivereth knowledge, desireth to deliver it in such a form as may be best believed, and

not as may be best examined; and he that receiveth knowledge, desireth rather present satisfaction than expectant inquiry; and so rather not to doubt than not to err; glory making the author not to lay open his weakness, and sloth making the disciple not to know his strength."*

CHAPTER IV.

SERVANTS.

"Now, master,"† said a fond nurse to her favourite boy, after having given him sugared bread and butter for supper, "now, master, kiss me; wipe your mouth, dear, and go up to the drawing-room to mamma; and when mistress asks you what you have had for supper, you'll say, bread and butter, for you *have had* bread and butter, you know, master."—"And sugar," said the boy; "I must say bread and butter, and sugar, you know."

How few children would have had the courage to have added, "and sugar!" How dangerous it is to expose them to such temptations! The boy must have immediately perceived the object of the nurse's casuistry. He must guess that she would be blamed for the addition of the sugar, else why should she wish to suppress the word? His gratitude is engaged to his nurse for running this risk to indulge him; his mother, by the force of contrast, appears a severe person, who, for no reason that he can comprehend, would deprive him of the innocent pleasure of eating sugar. As to its making him sick, he has eaten it, and he is not sick; as to its spoiling his teeth, he does not care about his teeth, and he sees no immediate change in them: therefore he concludes that his mother's orders are capricious, and that his nurse loves him better because she gives him the most pleasure. His honour and affection towards his nurse are immediately set in opposition to his duty to his mother. What a hopeful beginning in education! What a number of dangerous ideas may be given by a single word!

* Bacon, vol. i. p. 84.

† Verbatim from what has been really said to a boy

The taste for sugared bread and butter is soon over; but servants have it in their power to excite other tastes with premature and factitious enthusiasm. The waiting-maid, a taste for dress; the footman, a taste for gaming; the coachman and groom, for horses and equipage; and the butler, for wine. The simplicity of children is not a defence to them; and though they are totally ignorant of vice, they are exposed to adopt the principles of those with whom they live, even before they can apply them to their own conduct.

The young son of a lady of quality, a boy of six or seven years old, addressed, with great simplicity, the following speech to a lady who visited his mother.

Boy. Miss N——, I wish you could find somebody, when you go to London, who would keep you. It's a very good thing to be kept.

Lady. What do you mean, my dear?

Boy. Why it's when—you know, when a person's kept, they have every thing found for them; their friend saves them all trouble, you know. They have a *carriage* and *diamonds*, and every thing they want. I wish somebody would keep you.

Lady. (laughing.) But I'm afraid nobody would. Do you think anybody would?

Boy. (after a pause.) Why yes, I think Sir ——, naming a gentleman whose name had, at this time, been much talked of in a public trial, would be as likely as anybody.

The same boy talked familiarly of phaetons and gigs, and wished that he was grown up, that he might drive four horses in hand. It is obvious that these ideas were put into the boy's head by the servants with whom he associated.

Without supposing them to be profligate, servants, from their situation, from all that they see of the society of their superiors, and from the early prejudices of their own education, learn to admire that wealth and rank to which they are bound to pay homage. The luxuries and follies of fashionable life they mistake for happiness; they measure the respect they pay to strangers by their external appearance; they value their own masters and mistresses by the same standard; and in their attachment there is a necessary mixture of that sympathy which is sacred to prosperity. Setting aside all interested motives, servants love show and prodigality in

their masters; they feel that they partake the triumph, and they wish it to be as magnificent as possible. These dispositions break out naturally in the conversation of servants with one another; if children are suffered to hear them, they will quickly catch the same tastes. But if these ideas break out in their unpremeditated gossiping with one another, how much more strongly will they be expressed when servants wish to ingratiate themselves into a child's affections by flattery! Their method of showing their attachment to a family, is usually to exaggerate in their expressions of admiration of its consequence and grandeur; they deprecate all whom they imagine to be competitors in any respect with their masters, and feed and foster the little jealousies which exist between neighbouring families. The children of these families are thus early set at variance; the children in the same family are often taught, by the imprudence or malice of servants, to dislike and envy each other. In houses where each child has an attendant, the attendants regularly quarrel, and out of a show of zeal, make their young masters and mistresses parties in their animosity. Three or four maids sometimes produce their little dressed pupils for a few minutes to *the company* in the drawing-room, for the express purpose of seeing which shall obtain the greatest share of admiration. This competition, which begins in their nurses' arms, is continued by daily artifices through the whole course of their nursery education. Thus the emulation of children is rendered a torment to them, their ambition is directed to absurd and vile purposes, the understanding is perverted, their temper is spoiled, their simplicity of mind, and their capability of enjoying happiness, materially injured.

The language and manners, the awkward and vulgar tricks which children learn in the society of servants, are immediately perceived, and disgust and shock well-bred parents. This is an evil which is striking and disgraceful; it is more likely to be remedied than those which are more secret and slow in their operation: the habits of cunning, falsehood, envy, which lurk in the temper, are not instantly visible to strangers; they do not appear the moment children are reviewed by their parents; they may remain for years without notice or without cure.

All these things have been said a hundred times; and

what is more, they are universally acknowledged to be true. It has passed into a common maxim with all who reflect, and even with all who speak upon the subject of education, that "it is the worst thing in the world to leave children with servants." But, notwithstanding this, each person imagines that he has found some lucky exception to the general rule. There is some favourite maid or phenix of a footman in each family, who is supposed to be unlike all other servants, and, therefore, qualified for the education of children. But, if their qualifications were scrupulously examined, it is to be feared they would not be found competent to the trust that is reposed in them. They may, nevertheless, be excellent servants, much attached to their masters and mistresses, and sincerely desirous to obey their orders in the management of their pupils; but this is not sufficient. In education it is not enough to obey the laws; it is necessary to understand them; to understand the spirit, as well as the letter of the law. The blind application of general maxims will never succeed; and can that nice discrimination which is necessary to the just use of good principles, be expected from those who have never studied the human mind, who have little motive for the study, whose knowledge is technical, and who have never had any liberal education? Give, or attempt to give, the best waiting-maid in London the general maxim, "That pain should be associated with whatever we wish to make children avoid doing; and pleasure should be associated with whatever we wish that children should love to do;" will the waiting-maid understand this, even if you exchange the word *associated* for *joined?* How will she apply her new principle in practice? She will probably translate it into, "Whip the child when it is troublesome, and give it sweetmeats when it does as it is bid." With this compendious system of tuition she is well satisfied, especially as it contains nothing which is new to her understanding, or foreign to her habits. But if we should expect her to enter into the views of a Locke or a Barbauld, would it not be at once unreasonable and ridiculous?

What has been said of the understanding and dispositions of servants, relates only to servants as they are now educated. Their vices and their ignorance arise from the same causes, the want of education. They are not a separate caste in society, doomed to ignorance, or

degraded by inherent vice; they are capable, they are desirous of instruction. Let them be well educated,* and the difference in their conduct and understanding will repay society for the trouble of the undertaking. This education must begin as early as possible; let us not imagine that it is practicable to change the habits of servants who are already educated, and to make them suddenly fit companions in a family. They should not, in any degree, be permitted to interfere with the management of children, until their own education has been radically reformed. Let servants be treated with the utmost kindness; let their situations be made as happy as possible; let the reward of their services and attachment be as liberal as possible; but reward with justice; do not sacrifice your children to pay your own debts. Familiarity between servants and children cannot permanently increase the happiness of either party. Children who have early lived with servants, as they grow up are notoriously apt to become capricious and tyrannical masters. A boy who has been used to treat a footman as his playfellow, cannot suddenly command from him that species of deference which is compounded of habitual respect for the person, and conventional submission to his station; the young master must, therefore, effect a change in his footman's manner of thinking and speaking by violent means; he must extort that tribute of respect which he has neglected so long, and to which, consequently, his right is disputed.† He is sensible that his superiority is merely that of situation, and he therefore exerts his dormant prerogatives with jealous insolence. No master is so likely to become the tyrant of his valet-de-chambre as he who is conscious that he never *can* appear to him a hero. No servant feels the yoke of servitude more galling, than he who has been partially emancipated; who has lost his habits of "proud subordination, and his taste for dignified submission."‡

No mistaken motive of tenderness to domestics should operate upon the minds of parents; nor should they

* Perhaps an institution for the education of attendants upon children would be of the highest utility.

Mr. —— had once an intention of educating forty children for this purpose; from among whom he proposed to select eight or ten as masters for future schools upon the same plan.

† See the comedy of Wild Oats. ‡ Burke.

hesitate, for the general happiness of their families, to insist upon a total separation between those parts of it which will injure each other essentially by their union.

Everybody readily disclaims the idea of letting children live with servants; but, besides the exceptions in favour of particular individuals, there is yet another cause of the difference between theory and practice upon this subject. Time is left out of the consideration; people forget that life is made up of days and hours; and they by no means think that letting children pass several hours every day with servants has any thing to do with the idea of living with them. We must contract this latitude of expression. If children pass one hour in a day with servants, it will be in vain to attempt their education.

Madame Roland, in one of her letters to De Bosc, says that her little daughter Eudora had learned to swear; "And yet," continues she, "I leave her but one half hour a day with servants. Admirez la disposition!" Madame Roland could not have been much accustomed to attend to education.

While children are very young, there appears a necessity for their spending at least half an hour a day with servants; until they are four or five years old, they cannot dress or undress themselves, or, if they attempt it, they may learn careless habits, which in girls are particularly to be avoided. If a mother, or a governess, would make it a rule to be present when they are dressing, a maidservant would not talk to them, and could do them but little injury. It is of consequence that the maidservant should herself be perfectly neat, both from habit and taste. Children observe exactly the manner in which every thing is done for them, and have the wish, even before they have the power, to imitate what they see; they love order, if they are accustomed to it, and if their first attempts at arrangement are not made irksome by injudicious management. What they see done every day in a particular manner, they learn to think part of the business of the day, and they are uneasy if any of the rites of cleanliness are forgotten; the transition from this uneasiness to the desire of exerting themselves, is soon made, particularly if they are sometimes left to feel the inconveniences of being helpless. This should, and can be done, without affectation. A maid cannot be always ready, the instant she is wanted,

to attend upon them; they should not be waited upon as being masters and misses, they should be assisted as being helpless.* They will not feel their vanity flattered by this attendance; the maid will not be suffered to amuse them, they will be ambitious of independence, and they will soon be proud of doing every thing for themselves.

Another circumstance which keeps children long in subjection to servants is, their not being able to wield a knife, fork, or spoon, with decent dexterity. Such habits are taught to them by the careless maids who feed them, that they cannot for many years be produced even at the side-table without much inconvenience and constant anxiety. If this anxiety in a mother were to begin a little sooner, it need never be intense; patient care in feeding children neatly at first, will save many a bitter reprimand afterward; their little mouths and hands need not be disgusting at their meals, and their nurses had better take care not to let them touch what is disagreeable, instead of rubbing their lips rudely with a rough napkin, by way of making them love to have their mouths clean. These minutiæ must, in spite of didactic dignity, be noticed, because they lead to things of greater consequence; they are well worth the attention of a prudent mother or governess. If children are early taught to eat with care, they will not, from false shame, desire to dine† with the vulgar indulgent nursery-maid, rather than with the fastidious company at their mother's table. Children should first be taught to eat with a spoon what has been neatly cut for them; afterward they should cut a little meat for themselves towards the end of dinner, when the rage of hunger is appeased; they will then have "leisure to be good." The several operations of learning to eat with a spoon, to cut and to eat with a knife and fork, will become easy and habitual, if sufficient time be allowed.

Several children in a family, who were early attended to in all these little particulars, were produced at table when they were four or five years old; they suffered no constraint, nor were they ever banished to the nursery lest *company* should detect their evil habits. Their eyes and ears were at liberty during the time of dinner; and instead of being absorbed in the contemplation of their

* Rousseau. † See Sancho Panza.

plates, and at war with themselves and their neighbours, they could listen to conversation, and were amused even while they were eating. Without meaning to assert, with Rousseau, that all children are naturally gluttons or epicures, we must observe that eating is their first great and natural pleasure; this pleasure should, therefore, be *entirely* at the disposal of those who have the care of their education; it should be associated with the idea of their tutors or governesses. A governess may, perhaps, disdain to use the same means to make herself beloved by a child, as those which are employed by a nursery-maid; nor is it meant that children should be governed by their love of eating. Eating need not be made a reward, nor should we restrain their appetite as a punishment; praise and blame, and a variety of other excitements, must be preferred when we want to act upon their understanding. Upon this subject we shall speak more fully hereafter. All that is here meant to be pointed out is, that the mere physical pleasure of eating should not be associated in the minds of children with servants; it should not be at the disposal of servants; because they may, in some degree, balance by this pleasure the other motives which a tutor may wish to put in action. "Solid pudding," as well as "empty praise," should be in the gift of the preceptor.

Besides the pleasures of the table, there are many others which usually are associated early with servants. After children have been pent in a close formal drawing-room, motionless and mute, they are frequently dismissed to an apartment where there is no furniture too fine to be touched with impunity, where there is ample space, where they may jump and sing, and make as much noise as can be borne by the much-enduring ear-drum of the nursery-maid. Children think this insensibility of ear a most valuable qualification in any person; they have no sympathy with more refined auditory nerves, and they prefer the company of those who are to them the best hearers. A medium between their taste and that of their parents should, in this instance, be struck; parents should not insist upon eternal silence, and children should not be suffered to make mere noise essential to their entertainment. Children should be encouraged to talk at proper times, and should have occupations provided for them when they are required to be still; by these means it will not be a restraint to

them to stay in the same room with the rest of the family for some hours in the day. At other times they should have free leave to run about, either in rooms where they cannot disturb others, or out of doors; in neither case should they be with servants. Children should never be sent out to walk with servants.

After they have been poring over their lessons, or stiffening under the eye of their preceptors, they are frequently consigned immediately to the ready footman; they cluster around him for their hats, their gloves, their little boots and whips, and all the well known signals of pleasure. The hall door bursts open, and they sally forth under the interregnum of this beloved protector, to enjoy life and liberty; all the natural, and all the factitious ideas of the love of liberty, are connected with this distinct part of the day; the fresh air—the green fields—the busy streets—the gay shops—the variety of objects which the children see and hear—the freedom of their tongues—the joys of bodily exercise, and of mental relaxation, all conspire to make them prefer this period of the day, which they spend with the footman, to any other in the four-and-twenty hours. The footman sees, and is flattered by this; he is therefore assiduous to please, and piques himself upon being more indulgent than the hated preceptor. Servants usually wish to make themselves beloved by children: can it be wondered at if they succeed, when we consider the power that is thrown into their hands?

In towns, children have no gardens, no place where they can take that degree of exercise which is necessary for their health; this tempts their parents to trust them to servants, when they cannot walk with them themselves: but is there no individual in the family, neither tutor, nor governess, nor friend, nor brother, nor sister, who can undertake this daily charge? Cannot parents sacrifice some of their amusements in town, or cannot they live in the country? If none of these things can be done, without hesitation they should prefer a public to a private education. In these circumstances, they cannot educate their children at home; they had much better not attempt it, but send them at once to school.

In the country, arrangements may easily be made, which will preclude all those little dangers which fill a prudent parent's mind with anxiety. Here children

want the care of no servant to walk out with them; they can have gardens, and safe places for exercise allotted to them. In rainy weather, they can have rooms apart from the rest of the family; they need not be cooped up in an ill-contrived house, where servants are perpetually in their way.

Attention to the arrangement of a house is of material consequence. Children's rooms should not be passage rooms for servants; they should, on the contrary, be so situated, that servants cannot easily have access to them, and cannot, on any pretence of business, get the habit of frequenting them. Some fixed employment should be provided for children, which will keep them in a different part of the house, at those hours when servants must necessarily be in their bedchambers. There will be a great advantage in teaching children to arrange their own rooms, because this will prevent the necessity of servants being for any length of time in their apartments; their things will not be mislaid; their playthings will not be swept away or broken; no little temptations will arise to ask questions from servants; all necessity, and all opportunity of intercourse, will thus be cut off. Children should never be sent with messages to servants, either on their own business or on other people's; if they are permitted at any times to speak to them, they will not distinguish what times are proper and what are improper.

Servants have so much the habit of talking to children, and think it such a proof of good-nature to be interested about them, that it will be difficult to make them submit to this total silence and separation. The certainty that they shall lose their places, if they break through the regulations of the family, will, however, be a strong motive, provided that their places are agreeable and advantageous; and parents should be absolutely strict in this particular. What is the loss of the service of a good groom, or a good butler, compared with the danger of spoiling a child? It may be feared that some *secret* intercourse should be carried on between children and servants; but this will be lessened by the arrangements in the house, which we have mentioned; by care in a mother or governess, to know exactly where children are and what they are doing, every hour of the day; this need not to be a daily anxiety, for when certain hours have once been fixed for certain occupations,

habit is our friend, and we cannot have a safer. There is this great advantage in measures of precaution and prevention, that they diminish all temptation, at the same time that they strengthen the habits of obedience.

Other circumstances will deter servants from running any hazard themselves; they will not be so fond of children who do not live with them; they will consider them as beings moving in a different sphere. Children who are at ease with their parents, and happy in their company, will not seek inferior society; this will be attributed to pride by servants, who will not like them for this reserve. So much the better. Children who are encouraged to converse about every thing that interests them, will naturally tell their mothers if any one talks to them; a servant's speaking to them would be an extraordinary event to be recorded in the history of the day. The idea that it is dishonourable to tell tales, should never be put into their minds; they will never be the spies of servants, nor should they keep their secrets. Thus, as there is no faith expected from the children, the servants will not trust them; they will be certain of detection, and will not transgress the laws.

It may not be impertinent to conclude these minute precepts with assuring parents, that in a numerous family, where they have above twenty years been steadily observed, success has been the uniform result.

CHAPTER V.

ACQUAINTANCE.

"The charming little dears!" exclaims a civil acquaintance, the moment the children are introduced. "Won't you come to me, love?" At this question, perhaps, the bashful child backs towards its nurse or its mother; but in vain. Rejected at this trying crisis by its natural protectors, it is pushed forward into the middle of the circle, and all prospect of retreat being cut off, the victorious stranger seizes upon her little victim, whom she seats, without a struggle, upon her lap. To win the affections of her captive, the lady begins by a

direct appeal to personal vanity: "Who curls this pretty hair of yours, my dear? Won't you let me look at your nice new red shoes? What shall I give you for that fine colour in your cheeks? Let us see what we can find in my pocket!"

Among the pocket-bribes, the lady never fails to select the most useless trinkets; the child would make a better choice; for, if there should appear a pocket-book, which may be drawn up by a riband from its slip case, a screen that would unfold gradually into a green star, a pocket-fan, or a toothpick case with a spring lock, the child would seize upon these wilh delight; but the moment its attention is fixed, it is interrupted by the officious exclamation of, "Oh, let me do that for you, love! Let me open that for you, you'll break your sweet little nails. Ha! there is a looking-glass; whose pretty face is that? but we don't love people for being pretty, you know (mamma says I must not tell you you are pretty); but we love little girls for being good, and I am sure you look as if you were never naughty. I am sure you don't know what it is to be naughty; will you give me one kiss? and will you hold out your pretty little hand for some sugarplums? Mamma shakes her head, but mamma will not be angry, though mamma can refuse you nothing, I'll answer for it. Who spoils you? Whose favourite are you? Who do you love best in the world? And will you love me? And will you come and live with me? Shall I carry you away with me in the coach to-night? Oh! but I'm afraid I should eat you up, and then what would mamma say to us both?"

To stop this torrent of nonsense, the child's mother, perhaps, ventures to interfere with, "My dear, I'm afraid you'll be troublesome." But this produces only vehement assertions to the contrary. "The dear little creature can never be troublesome to anybody." Wo be to the child who implicitly believes this assertion! frequent rebuffs from his *friends* must be endured before this error will be thoroughly rectified: this will not tend to make those friends more agreeable or more beloved. That childish love, which varies from hour to hour, is scarcely worth consideration; it cannot be an object of competition to any reasonable person; but in early education nothing must be thought beneath our attention. A child does not retain much affection, it is true, for every casual visiter by whom he is flattered and ca-

ressed. The individuals are here to-day and gone to-morrow; variety prevents the impression from sinking into the mind, it may be said; but the general impression remains, though each particular stroke is not seen. Young children who are much caressed in company, are less intent than others upon pleasing those they live with, and they are also less independent in their occupations and pleasures. Those who govern such pupils have not sufficient power over them, because they have not the means of giving pleasure; because their praise or blame is frequently counteracted by applause of visiters. That unbroken course of experience, which is necessary for the success of a regular plan of education, cannot be preserved. Everybody may have observed the effect which the extraordinary notice of strangers produces upon children. After the day is over, and the company has left the house, there is a cold blank; a melancholy silence. The children then sink into themselves, and feel the mortifying change in their situation. They look with dislike upon every thing around them; yawn with ennui, or fidget with fretfulness, till, on the first check which they meet with, their secret discontent bursts forth into a storm. Resistance, caprice, and peevishness, are not borne with patience by a governess, though they are submitted to with smiles by the complaisant visiter. In the same day, the same conduct produces totally different consequences. Experience, it is said, makes fools wise; but such experience as this makes wise children fools.

Why is this farce of civility, which disgusts all parties, continually repeated between visiters and children? Visiters would willingly be excused from the trouble of flattering and spoiling them; but such is the spell of custom, that no one dares to break it, even when every one feels that it is absurd.

Children who are thought to be clever, are often produced to entertain company; they fill up the time, and relieve the circle from that embarrassing silence which proceeds from the having nothing to say. Boys who are thus brought forward at six or seven years old, and encouraged to say what are called *smart* things, seldom, as they grow up, have really good understandings. Children, who, like the fools in former times, are permitted to say every thing, now and then blurt out those simple truths which politeness conceals: this enter-

tains people, but, in fact, it is a sort of *naiveté*, which may exist without any great talent for observation, and without any powers of reasoning. Every thing in our manners, in the customs of the world, is new to children, and the relations of apparently dissimilar things, strike them immediately from their novelty. Children are often witty, without knowing it, or rather without intending it; but as they grow older, the same kind of wit does not please; the same objects do not appear in the same point of view; and boys who have been the delight of a whole house at seven or eight years old, for the smart things they could say, sink into stupidity and despondency at thirteen or fourteen. "Un nom trop fameux, est un fardeau très pesant," said a celebrated wit.

Plain, sober sense, does not entertain common visiters, and children whose minds are occupied, and who are not ambitious of exhibiting themselves for the entertainment of the company, will not in general please. So much the better; they will escape many dangers; not only the dangers of flattery, but also the dangers of nonsense. Few people know how to converse with children; they talk to them of things that are above or below their understandings; if they argue with them, they do not reason fairly; they silence them with sentiment or with authority; or else they baffle them by wit or by unintelligible terms. They often attempt to try their capacities with quibbles and silly puzzles. Children who are expert at answering these, have rarely been well educated: the extreme simplicity of sensible children will surprise those who have not been accustomed to it, and many will be provoked by their inaptitude to understand the commonplace wit of conversation.

"How many sticks go to a rook's nest?" said a gentleman to a boy of seven years old; he looked very grave, and having pondered upon the question for some minutes, answered "I do not know what you mean by the word go." Fortunately for the boy, the gentleman who asked the question was not a captious querist; he perceived the good sense of this answer; he perceived that the boy had exactly hit upon the ambiguous word which was puzzling to the understanding, and he saw that this showed more capacity than could have been shown by the parrying of a thousand witticisms. We have seen

S——, a remarkably intelligent boy of nine years old, stand with the most puzzled face imaginable, considering for a long half hour the common quibble of "There was a carpenter who made a door; he made it too large; he cut it and cut it, and he cut it *too little;* he cut it again, and it fitted." S—— showed very little satisfaction when he at length discovered the double meaning of the words "too little;" but simply said, "I did not know that you meant that the carpenter cut *too little off* the door."

"Which has most legs, a horse or no horse?"—"A horse has more legs than no horse," replied the unwary child. "But," continues the witty sophist, "a horse, surely, has but four legs; did you ever see a horse with five legs?"—"Never," says the child; "no horse has five legs."—"Oh, ho!" exclaims the entrapper, "I have you now! No horse has five legs, you say; then you must acknowledge that *no* horse has more legs than *a* horse. Therefore, when I asked you which has most legs, *a horse* or *no horse*, your answer, you see, should have been, *no horse*."

The famous dilemma of "you have what you have not lost; you have not lost horns; then you have horns;" is much in the same style of reasoning. Children may readily be taught to chop logic, and to parry their adversaries technically in this contest of false wit; but this will not improve their understandings, though it may, to superficial judges, give them the appearance of great quickness of intellect. We should not, *even* in jest, talk of nonsense to children, or suffer them *even* to hear inaccurate language. If confused answers be given to their questions, they will soon be content with a confused notion of things; they will be satisfied with bad reasoning, if they are not taught to distinguish it scrupulously from what is good, and to reject it steadily. Half the expressions current in conversation have merely a nominal value; they represent no ideas, and they pass merely by common courtesy: but the language of every person of sense has sterling value; it cheats and puzzles nobody; and even when it is addressed to children, it is made intelligible. No common acquaintance, who talks to a child merely for its own amusement, selects his expressions with any care; what becomes of the child afterward is no part of his concern; he does not consider the advantage of clear ex-

planations to the understanding, nor would he be at the pains of explaining any thing thoroughly, even if he were able to do so. And how few people are able to explain distinctly, even when they most wish to make themselves understood!

The following conversation passed between a learned doctor (formerly) of the Sorbonne, and a boy of seven years old.

Doctor. So, sir, I see you are very advanced already in your studies. You are quite expert at Latin. Pray, sir, allow me to ask you; I suppose you have heard of Tully's Offices?

Boy. Tully's Offices! No, sir.

Doctor. No matter. You can, I will venture to say, solve me the following question. It is not very difficult, but it has puzzled some abler casuists, I can tell you, though, than you or I; but if you will lend me your attention for a few moments, I flatter myself I shall make myself intelligible to you.

The boy began to stiffen at this exordium, but he fixed himself in an attitude of anxious attention, and the doctor, after having taken two pinches of snuff, proceeded:

"In the Island of Rhodes, there was once, formerly, a great scarcity of provisions, a famine quite; and some merchants fitted out ten ships to relieve the Rhodians; and one of the merchants got into port sooner than the others; and he took advantage of this circumstance to sell his goods at an exorbitant rate, finding himself in possession of the market. The Rhodians did not know that the other ships laden with provisions were to be in the next day; and they, of course, paid this merchant whatsoever price he thought proper to demand. Now the question is, in morality, whether did he act the part of an honest man in this business by the Rhodians? Or should he not rather have informed them of the nine ships which were expected to come with provisions to the market the ensuing day?"

The boy was silent, and did not appear to comprehend the story or the question in the least. In telling his story, the doctor of the Sorbonne unluckily pronounced the word *ship* and *ships* in such a manner, that the child all along mistook them for *sheep* and *sheeps;* and this mistake threw every thing into confusion. Besides this, a number of terms were made use of which

were quite new to the boy. Getting into port—being in possession of the market—selling goods at an exorbitant rate; together with the whole mystery of buying and selling, were as new to him, and appeared to him as difficult to be understood, as the most abstract metaphysics. He did not even know what was meant by the ships being expected *in* the next day; and "*acting the part* of an honest man," was to him an unusual mode of expression. The young casuist made no hand of this case of conscience; when at last he attempted an answer, he only exposed himself to the contempt of the learned doctor. When he was desired to repeat the story, he made a strange jumble about some people who wanted to get some *sheep*, and about one man who got in his sheep before the other nine sheep; but he did not know how or why it was wrong in him not to tell of the other sheep. Nor could he imagine why the *Rhodians* could not get sheep without this man. He had never had any idea of a famine. This boy's father, unwilling that he should retire to rest with his intellects in this state of confusion, as soon as the doctor had taken leave, told the story to the child in different words, to try whether it was the words or the ideas that puzzled him.

"In the Ægean sea, which you saw the other day in the map, there is an island, which is called the Island of Rhodes. In telling my story, I take the opportunity to fix a point in geography in your memory. In the Ægean sea there is an island which is called the Island of Rhodes. There was once a famine in this island, that is to say, the people had not food enough to live upon, and they were afraid that they should be starved to death. Now, some merchants, who lived on the continent of Greece, filled ten ships with provisions, and they sailed in these vessels for the Island of Rhodes. It happened that one of these ships got to the island sooner than any of the others. It was evening, and the captain of this ship knew that the others could not arrive until the morning. Now the people of Rhodes, being extremely hungry, were very eager to buy the provisions which this merchant had brought to sell; and they were ready to give a great deal more money for provisions than they would have done, if they had not been almost starved. There was not half a sufficient quantity of food in this one ship to supply all the people who

wanted food; and therefore those who had money, and who knew that the merchant wanted as much money as he could get in exchange for his provisions, offered to give him a large price, the price which he asked for them. Had these people known that nine other ships full of provisions would arrive in the morning, they would not have been ready to give so much money for food, because they would not have been so much afraid of being starved; and they would not have known, that, in exchange for their money, they could have a greater quantity of food the next day. The merchant, however, did not tell them that any ships were expected to arrive, and he consequently got a great deal more of their money for his provisions than he would have done, if he had told them the fact which he knew, and which they did not know. Do you think that he did right or wrong?"

The child, who now had rather more the expression of intelligence in his countenance than he had when the same question had been put to him after the former statement of the case, immediately answered, that he "thought the merchant had done wrong; that he should have told the people that more ships were to come in the morning." Several different opinions were given afterward by other children, and grown people who were asked the same question; and what had been an unintelligible story, was rendered, by a little more skill and patience in the art of explanation, an excellent lesson, or rather exercise in reasoning.

It is scarcely possible that a stranger, who sees a child only for a few hours, can guess what he knows and what he does not know; or that he can perceive the course of his thoughts, which depends upon associations over which he has no command; therefore, when a stranger, let his learning and abilities be what they will, attempts to teach children, he usually puzzles them, and the consequences of the confusion of mind he creates, last sometimes for years: sometimes it influences their moral, sometimes their scientific reasoning. "Everybody but my friends," said a little girl of six years old, "tells me I am very pretty." From this contradictory evidence, what must the child have inferred? The perplexity which some young people, almost arrived at the years of discretion, have shown in their first notions of mathematics, has been a matter of

astonishment to those who have attempted to teach them: this perplexity has at length been discovered to arise from their having early confounded in their minds the ideas of a triangle and an angle. In the most common modes of expression there are often strange inaccuracies, which do not strike us, because they are familiar to us; but children, who hear them for the first time, detect their absurdity, and are frequently anxious to have such phrases explained. If they converse much with idle visiters, they will seldom be properly applauded for their precision, and their philosophic curiosity will often be repressed by unmeaning replies. Children who have the habit of applying to their parents, or to sensible preceptors, in similar difficulties, will be somewhat better received, and will gain rather more accurate information. S—— (nine years old) was in a house where a chimney was on fire; he saw a great bustle, and he heard the servants and people, as they ran backwards and forwards, all exclaim, that "the chimney was on fire." After the fire was put out, and when the bustle was over, S—— said to his father, "What do people mean when they say *the chimney is on fire?* What is it that burns?" At this question, a silly acquaintance would probably have laughed in the boy's face; would have expressed astonishment as soon as his visit was over, at such an instance of strange ignorance in a boy of nine years old; or, if civility had prompted any answer, it would perhaps have been, "The chimney's being on fire, my love, means that the chimney's on fire! Everybody knows what's meant by 'the chimney's on fire!' There's a great deal of smoke, and sparks, and flame, coming out at the top, you know, when the chimney's on fire. And it's extremely dangerous, and would set a house on fire, or perhaps the whole neighbourhood, if it were not put out immediately. Many dreadful fires, you know, happen in towns, as we hear for ever in the newspaper, by the chimney's taking fire. Did you never hear of a chimney's being on fire before? You are a very happy young gentleman to have lived to your time of life, and to be still at a loss about such a thing. What burns? Why, my dear sir, the chimney burns; fire burns in the chimney. To be sure, fires are sad accidents; many lives are lost by them every day. I had a chimney on fire in my drawing-room last year."

Thus would the child's curiosity have been baffled by a number of words without meaning or connexion; on the contrary, when he applied to a father, who was interested in his improvement, his sensible question was listened to with approbation. He was told, that the chimney's being on fire was an inaccurate common expression; that it was the soot in the chimney, not the chimney, that burned; that the soot was sometimes set on fire by sparks of fire, sometimes by flame, which might have been accidentally *drawn up* the chimney. Some of the soot which had been set on fire was shown to him; the nature of burning in general, the manner in which the chimney *draws*, the meaning of that expression, and many other things connected with the subject, were explained upon this occasion to the inquisitive boy, who was thus encouraged to think and speak accurately, and to apply, in similar difficulties, to the friend who had thus taken the trouble to understand his simple question. A random answer to a child's question does him a real injury; but can we expect, that those who have no interest in education should have the patience to correct their whole conversation, and to adapt it precisely to the capacity of children? This would indeed be unreasonable; all we can do is to keep our pupils out of the way of those who *can* do them no good, and who *may* do them a great deal of harm. We must prefer the permanent advantage of our pupils, to the transient vanity of exhibiting, for the amusement of company, their early wit or "lively nonsense." Children should never be introduced for the amusement of the circle; nor yet should they be condemned to sit stock still, holding up their heads and letting their feet dangle from chairs that are too high for them, merely that they may appear what is called *well* before visiters. Whenever any conversation is going forward which they can understand, they should be kindly summoned to partake of the pleasures of society; its pains and its follies we may spare them. The manners of young people will not be injured by this arrangement; they will be at ease in company, because whenever they are introduced into it, they will make a part of it; they will be interested and happy; they will feel a proper confidence in themselves, and they will not be intent upon their courtesies, their frocks, their manner of holding their hands, or turning out their

toes, the proper placing of sir, madam, or your ladyship, with all the other innumerable trifles which embarrass the imagination, and consequently the manners, of those who are taught to think that they are to sit still, and behave in company some way differently from what they behave every day in their own family.

We have hitherto only spoken of acquaintance who do not attempt or desire to interfere in education, but who only caress and talk nonsense to children with the best intentions possible: with these, parents will find it comparatively easy to manage; they can contrive to employ children, or send them out to walk; by cool reserve, they can readily discourage such visiters from flattering their children; and by insisting upon becoming a party in all conversations which are addressed to their pupils, they can, in a great measure, prevent the bad effects of inaccurate or imprudent conversation; they can explain to their pupils what was left unintelligible, and they can counteract false associations, either at the moment they perceive them, or at some well-chosen opportunity. But there is a class of acquaintance with whom it will be more difficult to manage; persons who are, perhaps, on an intimate footing with the family, who are valued for their agreeable talents and estimable qualities; who are, perhaps, persons of general information and good sense, and who may yet never have considered the subject of education; or who, having partially considered it, have formed some peculiar and erroneous opinions. They will feel themselves entitled to talk upon education as well as upon any other topic; they will hazard, and they will support opinions; they will be eager to prove the truth of their assertions, or the superiority of their favourite theories. Out of pure regard for their friends, they will endeavour to bring them over to their own way of thinking in education; and they will by looks, by hints, by innuendoes, unrestrained by the presence of the children, insinuate their advice and their judgment upon every domestic occurrence. In the heat of debate, people frequently forget that children have eyes and ears, or any portion of understanding; they are not aware of the quickness of that comprehension which is excited by the motives of curiosity and self-love. It is dangerous to let children be present at any arguments, in which the management of their minds is concerned,

until they can perfectly understand the whole of the subject: they will, if they catch but a few words, or a few ideas, imagine, perhaps, that there is something wrong, some hardships, some injustice, practised against them by their friends; yet they will not distinctly know, nor will they, perhaps, explicitly inquire what it is. They should be sent out of the room before any such arguments are begun; or, if the conversation be abruptly begun before parents can be upon their guard, they may yet, without offending against the common forms of politeness, decline entering into any discussion until their children have withdrawn. As to any direct attempt practically to interfere with the children's education, by blame or praise, by presents, by books, or by conversation; these should, and really must, be resolutely and steadily resisted by parents: this will require some strength of mind. What can be done without it? Many people, who are convinced of the danger of the interference of friends and acquaintance in the education of their children, will yet, from the fear of offending, from the dread of being thought singular, submit to the evil. These persons may be very well received and very well liked in the world: they must content themselves with this reward; they must not expect to succeed in education, for strength of mind is absolutely necessary to those who would carry a plan of education into effect. Without being tied down to any one exclusive plan, and with universal toleration for different modes of moral and intellectual instruction, it may be safely asserted, that the plan which is most steadily pursued will probably succeed the best. People who are moved by the advice of all their friends, and who endeavour to adapt their system to every fashionable change in opinion, will inevitably repent of their weak complaisance; they will lose all power over their pupils, and will be forced to abandon the education of their families to chance.

It will be found impossible to educate a child at home, unless all interference from visiters and acquaintance is precluded. But it is of yet more consequence, that the members of the family should entirely agree in their sentiments, or at least in the conduct of the children under their care. Without this there is no hope. Young people perceive very quickly whether there is unanimity in their government; they make out an alphabet of looks

with unerring precision, and decipher with amazing ingenuity, all that is for their interest to understand. When children are blamed or punished, they always know pretty well who pities them, who thinks that they are in the wrong, and who thinks that they are in the right; and thus the influence of public opinion is what ultimately governs. If children find that, when mamma is displeased, grandmamma comforts them, they will console themselves readily under this partial disgrace, and they will suspect others of caprice, instead of ever blaming themselves. They will feel little confidence in their own experience, or in the assertions of others; they will think that there is always some chance of escape among the multitude of laws and lawgivers. No tutor or preceptor can be answerable, or ought *to undertake to answer for measures which he does not guide.* Le Sage, with an inimitable mixture of humour and good sense, in the short history of the education of the robbers who supped in that cave in which dame Leonardo officiated, has given many excellent lessons in education. Captain Rolando's tutors could never make any thing of him, because, whenever they reprimanded him, he ran to his mother, father, and grandfather, for consolation; and from them constantly received protection in rebellion, and commiseration for the wounds which he had inflicted upon his own hands and face, purposely to excite compassion and to obtain revenge.

It is obviously impossible, that all the world, the ignorant and the well-informed, the man of genius, the man of fashion, and the man of business, the pedant and the philosopher, should agree in their opinion upon any speculative subject; upon the wide subject of education they will probably differ eternally. It will, therefore, be thought absurd to require this union of opinion among the individuals of a family; but, let there be ever so much difference in their private opinions, they can surely discuss any disputed point at leisure, when children are absent; or they can, in these arguments, converse in French, or in some language which their pupils do not understand. The same caution should be observed, as we just now recommended, with respect to acquaintance. It is much better, when any difficulties occur, to send the children at once into any other room, and to tell them that we do so because we have something to say that we do not wish them to hear, than to

make false excuses to get rid of their company, or to begin whispering and disputing in their presence.

These precautions are advisable while our pupils are young, before they are capable of comprehending arguments of this nature, and while their passions are vehemently interested on one side or the other. As young people grow up, the greater variety of opinions they hear upon all subjects, the better; they will then form the habit of judging for themselves: while they are very young, they have not the means of forming correct judgments upon abstract subjects, nor are these the subjects upon which their judgment can be properly exercised: upon the subject of education they cannot be competent judges, because they cannot, till they are nearly educated, have a complete view of the means or of the end; besides this, no *man* is allowed to be judge in his own case.

Some parents allow their children a vast deal of liberty while they are young, and restrain them by absolute authority when their reason is, or ought to be, a sufficient guide for their conduct. The contrary practice will make parents much more beloved, and will make children both wiser and happier. Let no idle visiter, no intrusive, injudicious friend, for one moment interfere to lessen the authority necessary for the purposes of education. Let no weak jealousy, no unseasonable love of command, restrain young people after they are sufficiently reasonable to judge for themselves. In the choice of their friends, their acquaintance, in all the great and small affairs of life, let them have liberty in proportion as they acquire reason. Fathers do not commonly interfere with their sons' amusements, nor with the choice of their acquaintance, so much as in the regulation of their pecuniary affairs: but mothers, who have had any considerable share in the education of boys, are apt to make mistakes as to the proper seasons for indulgence and control. They do not watch the moments when dangerous prejudices and tastes begin to be formed; they do not perceive how the slight conversations of acquaintance operate upon the ever-open ear of childhood; but when the age of passion approaches, and approaches, as it usually does, in storms and tempest, then all their maternal fears are suddenly roused, and their anxiety prompts them to use a thousand injudicious and ineffectual expedients.

A modern princess, who had taken considerable pains in the education of her son, made both herself and him ridiculous by her anxiety upon his introduction into the world. She travelled about with him from place to place, to *make him see* every thing worth seeing; but he was not to stir from her presence; she could not bear to have him out of sight or hearing. In all companies he was *chaperoned* by his mother. Was he invited to a ball, she must be invited also, or he could not accept of the invitation: he must go in the same coach, and return in the same coach with her. "I should like extremely to dance another dance," said he one evening to his partner, "but you see I must go; my mother is putting on her cloak." The tall young man called for some negus, and had the glass at his lips, when his mamma called out in a shrill voice, through a vista of heads, "Eh! My son no drink wine! My son like milk and water!" The son was at this time at years of discretion.

CHAPTER VI.

ON TEMPER.

We have already, in speaking of the early care of infants, suggested that the temper should be attended to from the moment of their birth. A negligent, a careless, a passionate servant, must necessarily injure the temper of a child. The first language of an infant is intelligible only to its nurse; she can distinguish between the cry of pain and the note of ill-humour, or the roar of passion. The cry of pain should be listened to with the utmost care, and every possible means should be used to relieve the child's sufferings; but when it is obvious that he cries from ill-humour, a nurse should not sooth him with looks of affection; these she should reserve for the moment when the storm is over. We do not mean that infants should be suffered to cry for a length of time without being regarded; this would give them habits of ill-humour: we only wish that the nurse would, as soon as possible, teach the child that

what he wants can be obtained without his putting himself in a passion. Great care should be taken to prevent occasions for ill-humour; if a nurse neglect her charge, or if she be herself passionate, the child will suffer so much pain, and so many disappointments, that it must be in a continual state of fretfulness. An active, cheerful, good-humoured, intelligent nurse, will make a child good-humoured by a regular, affectionate attendance; by endeavouring to prevent all unnecessary sufferings, and by quickly comprehending its language of signs. The best humoured woman in the world, if she is stupid, is not fit to have the care of a child; the child will not be able to make her understand any thing less than vociferation. By way of amusing the infant, she will fatigue it with her caresses; without ever discovering the real cause of his wo, she will sing one universal lullaby upon all occasions to pacify her charge.

It requires some ingenuity to discover the cause and cure of those long and loud fits of crying, which frequently arise from imaginary apprehensions. A little boy of two years old used to cry violently when he awoke in the middle of the night and saw a candle in the room. It was observed that the shadow of the person who was moving about in the room frightened him, and as soon as the cause of his crying was found out, it was easy to pacify him; his fear of shadows was effectually cured, by playfully showing him, at different times, that shadows had no power to hurt him.

H——, about nine months old, when she first began to observe the hardness of bodies, let her hand fall upon a cat which had crept unperceived upon the table; she was surprised and terrified by the unexpected sensation of softness; she could not touch the cat, or any thing that felt like soft fur, without showing agitation, till she was near four years old, though every gentle means was used to conquer her antipathy; the antipathy was, however, cured at last, by her having a wooden cat covered with fur for a plaything.

A boy between four and five years old, H——, used to cry bitterly when he was left alone in a room, in which there were some old family pictures. It was found that he was much afraid of these pictures; a maid, who took care of him, had terrified him with the notion that they would come to him, or that they were looking at him, and would be angry with him if he were

not *good*. To cure the child of this fear of pictures, a small-sized portrait, which was not among the number of those that had frightened him, was produced in broad daylight. A piece of cake was put upon this picture, which the boy was desired to take; he took it, touched the picture, and was shown the canvass at the back of it; which, as it happened to be torn, he could easily identify with the painting: the picture was then given to him for a plaything; he made use of it as a table, and became very fond of it as soon as he was convinced that it was not alive, and that it could do him no sort of injury.

By patiently endeavouring to discover the causes of terror in children, we may probably prevent their tempers from acquiring many bad habits. It is scarcely possible for any one who has not constantly lived with a child, and who has not known the whole rise and progress of his little character, to trace the causes of these strange apprehensions; for this reason, a parent has advantages in the education of his child, which no tutor or schoolmaster can have.

A little boy was observed to show signs of fear and dislike at hearing the sound of a drum: to a stranger, such fear must have seemed unaccountable; but those who lived with the child knew from what it arose. He had been terrified by the sight of a merry-andrew in a mask, who had played upon a drum; this was the first time that he had ever heard the sound of a drum; the sound was associated with fear, and continued to raise apprehensions in the child's mind after he had forgotten the original cause of that apprehension.

We are well aware that we have laid ourselves open to ridicule, by the apparently trifling anecdotes which have just been mentioned; but if we can save one child from an hour's unnecessary misery, or one parent from an hour's anxiety, we shall bear the laugh, we hope, with good-humour.

Young children, who have not a great number of ideas, perhaps for that reason associate those which they acquire with tenacity; they cannot reason concerning general causes; they expect that any event, which has once or twice followed another, will always follow in the same order; they do not distinguish between proximate and remote causes; between coincidences and the regular connexion of cause and effect: hence children are subject to feel hopes and fears from

things which to us appear matters of indifference. Suppose, for instance, that a child is very eager to go out to walk, that his mother puts on her gloves and her cloak, these being the usual signals that she is going out, he instantly expects, if he has been accustomed to accompany her, that he shall have the pleasure of walking out; but if she goes out and forgets him, he is not only disappointed at that moment, but the disappointment, or, at least, some indistinct apprehension, recurs to him when he is in a similar situation: the putting on of his mother's cloak and gloves are then circumstances of vast importance to him, and create anxiety, perhaps tears, while to every other spectator they are matters of total indifference. Every one, who has had any experience in the education of such children as are apt to form strong associations, must be aware, that many of those fits of crying, which appear to arise solely from ill-humour, are occasioned by association. When these are suffered to become habitual, they are extremely difficult to conquer: it is, therefore, best to conquer them as soon as possible. If a child has, by any accident, been disposed to cry at particular times in the day, without any obvious cause, we should at those hours engage his attention, occupy him, change the room he is in, or by any new circumstance break his habits. It will require some penetration to distinguish between involuntary tears and tears of caprice; but even when children are really cross, it is not, while they are very young, prudent to let them wear out their ill-humour, as some people do, in total neglect. Children, when they are left to weep in solitude, often continue in wo for a considerable length of time, until they quite forget the original cause of complaint; and they continue their convulsive sobs and whining note of distress, purely from inability to stop themselves.

Thus habits of ill-humour are contracted: it is better, by a little well-timed excitation, to turn the course of a child's thoughts, and to make him forget his trivial miseries. "The tear forgot as soon as shed," is far better than the peevish whine, or sullen lowering brow, which proclaim the unconquered spirit of discontent.

Perhaps from the anxiety which we have expressed to prevent the petty misfortunes and unnecessary tears of children, it may be supposed that we are disposed to humour them; far from it.—We know too well that a

humoured child is one of the most unhappy beings in the world; a burden to himself and to his friends; capricious, tyrannical, passionate, peevish, sullen, and selfish.

An only child runs a dreadful chance of being spoiled. He is born a person of consequence; he soon discovers his innate merit; every eye is turned upon him the moment he enters the room; his looks, his dress, his appetite, are all matters of daily concern to a whole family; his wishes are divined; his wants are prevented; his witty sayings are repeated in his presence; his smiles are courted; his caresses excite jealousy, and he soon learns how to avail himself of his central situation. His father and mother make him alternately their idol and their plaything; they do not think of educating, they only think of admiring him; they imagine that he is unlike all other children in the universe, and that his genius and his temper are independent of all cultivation. But when this little paragon of perfection has two or three brothers and sisters, the scene changes; the man of consequence dwindles into an insignificant little boy. We shall hereafter explain more fully the danger of accustoming children to a large share of our sympathy; we hope that the economy of kindness and caresses which we have recommended,* will be found to increase domestic affection, and to be essentially serviceable to the temper. In a future chapter, "On Vanity, Pride, and Ambition," some remarks will be found on the use and abuse of the stimuli of praise, emulation, and ambition. The precautions which we have already mentioned with respect to servants, and the methods that have been suggested for inducing habitual and rational obedience, will also, we hope, be considered as serviceable to the temper, as well as to the understanding. Perpetual and contradictory commands and prohibitions not only make children disobedient, but fretful, peevish, and passionate.

Idleness among children, as among men, is the root of all evil, and leads to no evil more certainly than to ill-temper. It is said,† that the late king of Spain was always so cross during Passion-week, when he was obliged to abstain from his favourite amusement of hunting, that none of his courtiers liked to approach his

* See Chapter on Sympathy and Sensibility.

† By Mr. Townsend, in his Travels into Spain.

majesty. There is a great similarity between the condition of a prince flattered by his courtiers, and a child humoured by his family; and we may observe, that both the child and prince are most intolerable to their dependants and friends, when any of their daily amusements are interrupted. It is not that the amusements are in themselves delightful, but the pains and penalties of idleness are insupportable. We have endeavoured to provide a variety of occupations, as well as of amusements, for our young pupils,* that they may never know the misery of the Spanish monarch. When children are occupied, they are independent of other people; they are not obliged to watch for casual entertainment from those who happen to be unemployed, or who chance to be in a humour to play with them; they have some agreeable object continually in view, and they feel satisfied with themselves. They will not torment everybody in the house with incessant requests. "May I have this? Will you give me that? May I go out to see such a thing? When will it be dinner-time? When will it be tea-time? When will it be time for me to go to supper?" are the impatient questions of a child who is fretful from having nothing to do. Idle children are eternal petitioners, and the refusals they meet with perpetually irritate their temper. With respect to requests in general, we should either grant immediately what a child desires, or we should give a decided refusal. The state of suspense is not easily borne; the propriety or impropriety of the request should decide us either to grant or to refuse it; and we should not set the example of caprice, or teach our pupils the arts of courtiers, who watch the humour of tyrants. If we happen to be busy, and a child comes with an eager request about some trifle, it is easy so far to command our temper as to answer, "I am busy, don't talk to me now," instead of driving the petitioner away with harsh looks, and a peremptory refusal, which make as great an impression as harsh words. If we are reasonable, the child will soon learn to apply to us at proper times. By the same steady, gentle conduct, we may teach him to manage his love of talking with discretion, and may prevent those ineffectual exhortations to silence, which irritate the temper of the vivacious pupil. Expostulations, and

* See Chapter on Toys.

angry exclamations, will not so effectually command from our pupils temperance of tongue, as their own conviction that they are more likely to gain attention from their friends, if they choose properly their seasons for conversation.

To prevent, we cannot too often repeat it, is better than to punish, without humouring children; that is to say, without yielding to their caprices, or to their *will*, when they express their wishes with impatience, we may prevent many of those little inconveniences which tease and provoke the temper; any continual irritation exhausts our patience; acute pain can be endured with more fortitude.

We have sometimes seen children become fretful from the constant teasing effect of some slight inconveniences in their dress; we have pitied poor little boys who were continually exhorted to produce their handkerchiefs, and who could scarcely ever get these handkerchiefs out of their tight pockets into which they had been stuffed; into such pockets the hand can never enter or withdraw itself, without as much difficulty as Trenck had in getting rid of his handcuffs. The torture of tight shoes, of back-boards, collars, and stocks, we hope, is nearly abandoned; surely all these are unnecessary trials of fortitude; they exhaust that patience which might be exercised upon things of consequence. Count Rumford tells us that he observed a striking melioration in the temper of all the mendicants in the establishment at Munich, when they were relieved from the constant torments of rags and vermin.

Some people imagine that early sufferings, that a number of small inconveniences, habitual severity of reproof, and frequent contradiction and disappointment, inure children to pain, and consequently improve their temper. Early sufferings which are necessary and inevitable, may improve children in fortitude; but the contradictions and disappointments which arise immediately from the will of others, have not the same effect. Children, where their own interests are concerned, soon distinguish between these two classes of evils; they submit patiently when they know that it would be in vain to struggle; they murmur and rebel, if they dare, whenever they feel the hand of power press upon them capriciously. We should not invent trials of temper for

our pupils ; if they can bear with good humour the common course of events, we should be satisfied.

"I tumbled down, and I *bored* it very well," said a little boy of three years old, with a look of great satisfaction. If this little boy had been thrown down on purpose by his parents as a trial of temper, it probably would not have been borne so well. As to inconveniences, in general it is rather a sign of indolence than a proof of good temper in children to submit to them quietly ; if they can be remedied by exertion, why should they be passively endured? If they cannot be remedied, undoubtedly it is then better to abstract the attention from them as much as possible, because this is the only method of lessening the pain. Children should be assisted in making this distinction, by our applauding their exertions when they struggle against unnecessary evil, by our commending their patience whenever they endure inevitable pain without complaints.

Illness, for instance, is an inevitable evil. To prevent children from becoming peevish when they are ill, we should give our pity and sympathy with an increased appearance of affection whenever they bear their illness with patience. No artifice is necessary ; we need not affect any increase of pity ; patience and good-humour in the sufferer naturally excite the affection and esteem of the spectators. The self-complacency which the young patient must feel from a sense of his own fortitude, and the perception that he commands the willing hearts of all who attend him, are really alleviations of his bodily sufferings ; the only alleviations which, in some cases, can possibly be afforded.

The attention which is thought necessary in learning languages, often becomes extremely painful to the pupils, and the temper is often hurt by ineffectual attempts to improve the understanding. We have endeavoured to explain the methods of managing* the attention of children with the least possible degree of pain. Yesterday a little boy of three years old, W——, was learning his alphabet from his father ; after he had looked at one letter for some time with great attention, he raised his eyes, and with a look of much good-humour, said to his father, "It makes me tired to stand." His father seated him

* See Chapter on Attention.

upon his knee, and told him that he did wisely in telling what tired him: the child, the moment he was seated, fixed his attentive eyes again upon his letters with fresh eagerness, and succeeded. Surely it was not humouring this boy to let him sit down when he was tired. If we teach a child that our assistance is to be purchased by fretful entreaties; if we show him that we are afraid of a storm, he will make use of our apprehensions to accomplish his purposes. On the contrary, if he perceive that we can steadily resist his tears and ill-humour, and especially if we show indifference upon the occasion, he will perceive that he had better dry his tears, suspend his rage, and try how far good-humour will prevail. Children who in every little difficulty are assisted by others, really believe that others are in fault whenever this assistance is not immediately offered. Look at a humoured child, for instance, trying to push a chair along the carpet; if a wrinkle in the carpet stops his progress, he either beats the chair, or instantly turns with an angry appealing look to his mother for assistance; and if she do not get up to help him, he will cry. Another boy, who has not been humoured, will neither beat the chair nor angrily look round for help; but he will look immediately to see what it is that stops the chair, and when he sees the wrinkle in the carpet, he will either level or surmount the obstacle: during this whole operation, he will not feel in the least inclined to cry. Both these children might have had precisely the same original stock of patience; but by different management, the one would become passionate and peevish, the other both good-humoured and persevering. The pleasure of success pays children, as well as men, for long toil and labour. Success is the proper reward of perseverance; but if we sometimes capriciously grant, and sometimes refuse our help, our pupils cannot learn this important truth; and they imagine that success depends upon the will of others, and not upon their own efforts. A child educated by a fairy, who sometimes came with magic aid to perform, and who was sometimes deaf to her call, would necessarily become ill-humoured.

Several children, who were reading "Evenings at Home," observed that in the story of Juliet and the fairy Order, "it was wrong to make the fairy come whenever Juliet cried, and could not do her task, because that was

the way," said the children, "to make the little girl ill-humoured."

We have formerly observed that children who live much with companions of their own age, are under but little habitual restraint as to their tempers; they quarrel, fight, and shake hands; they have long and loud altercations, in which the strongest voice often gets the better. It does not improve the temper to be overborne by petulance and clamour: even mild, sensible children, will learn to be positive, if they converse with violent dunces. In private families, where children mix in the society of persons of different ages, who encourage them to converse without reserve, they may meet with exact justice; they may see that their respective talents and good qualities are appreciated; they may acquire the habit of arguing without disputing; and they may learn that species of mutual forbearance in trifles, as well as in matters of consequence, which tends so much to domestic happiness. Dr Franklin, in one of his letters to a young female friend, after answering some questions which she had asked him, apparently referring to an argument which had passed some time before, concludes with this comprehensive compliment: "So, you see, I think you had the best of the *argument*; and, as you gave it up in complaisance to the company, I think you had also the best of the *dispute*." When young people perceive that they gain credit by keeping their temper in conversation, they will not be furious for victory, because moderation during the time of battle can alone entitle them to the honours of a triumph.

It is particularly necessary for girls to acquire command of temper in arguing, because much of the effect of their powers of reasoning, and of their wit, when they grow up, will depend upon the gentleness and good-humour with which they conduct themselves. A woman who should attempt to thunder like Demosthenes, would not find her eloquence increase her domestic happiness. We by no means wish that women should yield their better judgment to their fathers or husbands; but, without using any of that debasing cunning which Rousseau recommends, they may support the cause of reason with all the graces of female gentleness.

A man in a furious passion is terrible to his enemies; but a woman in a passion is disgusting to her friends;

she loses the respect due to her sex, and she has not masculine strength and courage to enforce any other species of respect. These circumstances should be considered by writers who advise that no difference should be made in the education of the two sexes. We cannot help thinking that their happiness is of more consequence than their speculative rights, and we wish to educate women so that they may be happy in the situations in which they are most likely to be placed. So much depends upon the temper of women, that it ought to be most carefully cultivated in early life ; girls should be more inured to restraint than boys, because they are likely to meet with more restraint in society. Girls should learn the habit of bearing slight reproofs without thinking them matters of great consequence ; but then they should always be permitted to state their arguments, and they should perceive that justice is shown to them, and that they increase the affection and esteem of their friends by command of temper. Many passionate men are extremely good-natured, and make amends for their extravagances by their candour, and their eagerness to please those whom they have injured during their fits of anger. It is said that the servants of Dean Swift used to throw themselves in his way whenever he was in a passion, because they knew that his generosity would recompense them for standing the full fire of his anger. A woman who permitted herself to treat her servants with ill-humour, and who believed that she could pay them for ill usage, would make a very bad mistress of a family ; her husband and her children would suffer from her ill temper, without being recompensed for their misery. We should not let girls imagine that they can balance ill-humour by some good quality or accomplishment ; because, in fact, there are none which can supply the want of temper in the female sex.

A just idea of the nature of dignity, opposed to what is commonly called *spirit*, should be given early to our female pupils. Many women who are not disposed to violence of temper, affect a certain degree of petulance, and a certain stubbornness of opinion, merely because they imagine that to be gentle is to be mean ; and that to listen to reason is to be deficient in spirit.

Enlarging the understanding of young women will prevent them from the trifling vexations which irritate

those who have none but trifling objects. We have observed that concerted trials of temper are not advantageous for very young children. Those trials which are sometimes prepared for pupils at a more advanced period of education, are not always more happy in their consequences. We make trifles appear important; and then we are surprised that they are thought so.

Lord Kames tells us that he was acquainted with a gentleman, who, though otherwise a man of good understanding, did not show his good sense in the education of his daughters' temper. "He had," says Lord Kames, "three comely daughters, between twelve and sixteen, and to inure them to bear disappointments, he would propose to make a visit which he knew would delight them. The coach was bespoke, and the young ladies, completely armed for conquest, were ready to take their seats. But, behold! their father had changed his mind. This, indeed, was a disappointment; but as it appeared to proceed from whim, or caprice, it might sour their temper instead of improving it."*

But why should a visit be made of such mighty consequence to girls? Why should it be a disappointment to stay at home? And why should Lord Kames advise that disappointments should *be made to appear* the effects of chance? This method of making things appear to be what they are not, we cannot too often reprobate; it will not have better success in the education of the temper, than in the management of the understanding; it would ruin the one or the other, or both: even when promises are made with perfect good faith to young people, the state of suspense which they create is not serviceable to the temper, and it is extremely difficult to promise proper rewards.† The celebrated Serena surely established her reputation for good temper without any very severe trials. Our standard of female excellence is evidently changed since the days of Griselda; but we are inclined to think, that even in these degenerate days, public amusements would not fill the female imagination, if they were not early represented as such charming things, such great rewards to girls, by their imprudent friends.

The temper depends much upon the understanding;

* Lord Kames, p. 109.

† See Chapter on Rewards and Punishments.

and whenever we give our pupils, whether male or female, false ideas of pleasure, we prepare for them innumerable causes of discontent. "You ought to be above such things! You ought not to let yourself be vexed by such trifles!" are common expressions, which do not immediately change the irritated person's feelings. You must alter the habits of thinking; you must change the view of the object, before you can alter the feelings. Suppose a girl has, from the conversation of all her acquaintance, learned to imagine that there is some vast pleasure in going to a masquerade; it is in vain to tell her, in the moment that she is disappointed about her masquerade dress, that "it is a trifle, and she ought to be above trifles." She cannot be above them at a moment's warning; but if she had never been inspired with a violent desire to go to a masquerade, the disappointment would really appear trifling. We may calculate the probability of any person's mortification, by observing the vehemence of their hopes; thus we are led to observe, that the imagination influences the temper. Upon this subject we shall speak more fully when we treat of Imagination and Judgment.

To measure the degree of indulgence which may be safe for any given pupils, we must attend to the effect produced by pleasure upon their imagination and temper. If a small diminution of their usual enjoyments disturbs them, they have been rendered not too happy, but too susceptible. Happy people, who have resources in their own power, do not feel every slight variation in external circumstances. We may safely allow children to be as happy as they possibly can be without sacrificing the future to the present. Such prosperity will not enervate their minds.

We make this assertion with some confidence, because experience has in many instances confirmed our opinion. Among a large family of children, who have never been tormented with artificial trials of temper, and who have been made as happy as it was in the power of their parents to make them, there is not one ill-tempered child. We have examples every day before us of different ages, from three years old to fifteen.

Before parents adopt either Epicurean or Stoical doctrines in the education of the temper, it may be prudent to calculate the probabilities of the good and evil which their pupils are likely to meet with in life. The Syb-

arite, whose night's rest was disturbed by a doubled rose leaf, deserves to be pitied almost as much as the young man who, when he was benighted in the snow, was reproached by his severe father for having collected a heap of snow to make himself a pillow. Unless we could for ever ensure the bed of roses to our pupils, we should do very imprudently to make it early necessary to their repose: unless the pillow of snow is likely to be their lot, we need not inure them to it from their infancy.

CHAPTER VII.

ON OBEDIENCE.

Obedience has been often called the virtue of childhood. How far it is entitled to the name of virtue, we need not at present stop to examine. Obedience is expected from children long before they can reason upon the justice of our commands; consequently it must be taught as a habit. By associating pleasure with those things which we first desire children to do, we should make them necessarily like to obey; on the contrary, if we begin by ordering them to do what is difficult and disagreeable to them, they must dislike obedience. The poet seems to understand this subject when he says,

> "Or bid her wear your necklace rowed with pearl,
> You'll find your Fanny an obedient girl."*

The taste for a necklace rowed with pearl, is not the *first* taste, even in girls, that we should wish to cultivate; but the poet's *principle* is good, notwithstanding. Bid your child do things that are agreeable to him, and you may be sure of his obedience. Bid a hungry boy eat apple-pie; order a shivering urchin to warm himself at a good fire; desire him to go to bed when you see him yawn with fatigue, and by such seasonable com-

* Elegy on an old Beauty.—Parnel.

mands you will soon form associations of pleasure in his mind, with the voice and tone of authority. This tone should never be threatening or alarming; it should be gentle, but decided. Whenever it becomes necessary that a child should do what he feels disagreeable, it is better to make him submit at once to necessity, than to create any doubt and struggle in his mind, by leaving him a possibility of resistance. Suppose a little boy wishes to sit up later than the hour at which you think proper that he should go to bed; it is most prudent to take him to bed at the appointed time, without saying one word to him, either in the way of entreaty or command. If you entreat, you give the child an idea that he has it in his power to refuse you: if you command, and he does not instantly obey, you hazard your authority, and you teach him that he can successfully set his will in opposition to yours. The boy wishes to sit up; he sees no reason, in the moral fitness of things, why he should go to bed at one hour more than at another; all he perceives is, that such is your will. What does he gain by obeying you? Nothing: he loses the pleasure of sitting up half an hour longer. How can you then expect that he should, in consequence of these reasonings, give up his obvious immediate interest, and march off to bed heroically at the word of command? Let him not be put to the trial; when he has for some time been regularly taken to bed at a fixed hour, he will acquire the habit of thinking that he must go at that hour: association will make him expect it; and if his experience has been uniform, he will, without knowing why, think it necessary that he should do as he has been used to do. When the habit of obedience to customary necessity is thus formed, we may, without much risk, ingraft upon it obedience to the voice of authority. For instance, when the boy hears the clock strike, the usual signal for his departure, you may, if you see that he is habitually ready to obey this signal, associate your commands with that to which he has already learned to pay attention. "Go; it is time that you should go to bed now," will only seem to the child a confirmation of the sentence already pronounced by the clock: by degrees, your commands, after they have been regularly repeated, when the child feels no hope of evading them, will, even in new circumstances, have from association the power of compelling obedience.

Whenever we desire a child to do any thing, we should be perfectly certain, not only that it is a thing which he is capable of doing, but also that it is something we can, in case it comes to that ultimate argument, force him to do. You cannot oblige a child to stand up, if he has a mind to sit down; or to walk, if he does not choose to exert his muscles for that purpose: but you can absolutely prevent him from touching whatever you desire him not to meddle with, by your superior strength. It is best, then, to begin with prohibitions; with such prohibitions as you can, and will, steadily persevere to enforce: if you are not exact in requiring obedience, you will never obtain it, either by persuasion or authority. As it will require a considerable portion of time and unremitting attention, to enforce the punctual observance of a variety of prohibitions, it will, for your own sake, be most prudent to issue as few edicts as possible, and to be sparing in the use of the imperative mood. It will, if you calculate the trouble you must take day after day to watch your pupil, cost you less to begin by arranging every circumstance in your power, so as to prevent the necessity of trusting to laws what ought to be guarded against by precaution. Do you, for instance, wish to prevent your son from breaking a beautiful china-jar in your drawing-room? instead of forbidding him to touch it, put it out of his reach.—Would you prevent your son from talking to servants? let your house, in the first place, be so arranged, that he shall never be obliged to pass through any rooms where he is likely to meet with servants; let all his wants be gratified without their interference; let him be able to get at his hat without asking the footman to reach it for him, from its inaccessible height.* The simple expedient of hanging the hat in a place where the boy can reach it, will save you the trouble of continually repeating, "Don't ask William, child, to reach your hat; can't you come and ask me?" Yes, the boy can come and ask you; but if you are busy, you will not like to go in quest of the hat; your reluctance will possibly appear in your countenance, and the child, who understands the language of looks better than that of words, will clearly comprehend, that you are displeased with him at the very instant that he is fulfilling the letter of the law.

* Rousseau.

A lady who was fond of having her house well arranged, discovered, to the amazement of her acquaintance, the art of making all her servants keep every thing in its place. Even in the kitchen, from the most minute article to the most unwieldy, every thing was invariably to be found in its allotted station; the servants were thought miracles of obedience; but, in fact, they obeyed because it was the easiest thing they could possibly do. Order was made more convenient to them than disorder; and, with their utmost ingenuity to save themselves trouble, they could not invent places for every thing more appropriate than those which had been assigned by their mistress's legislative economy. In the same manner we may secure the *orderly* obedience of children, without exhausting their patience or our own. Rousseau advises, that children should be governed solely by the necessity of circumstances; but there are *one-and-twenty* excellent objections to this system; the first being, that it is impossible: of this Rousseau must have been sensible, in the trials which he made as a preceptor. When he had the management of a refractory child, he found himself obliged to invent and arrange a whole drama, by artificial experience, to convince his little pupil that he had better not walk out in the streets of Paris alone; and that, therefore, he should wait until his tutor could conveniently accompany him. Rousseau had prepared the neighbours on each side of the street to make proper speeches as his pupil passed by their doors, which alarmed and piqued the boy effectually. At length the child was met, at a proper time, by a friend who had been appointed to watch him; and thus he was brought home submissive. This scene, as Rousseau observes, was admirably well performed;* but what occasion could there be for so much contrivance and deceit? If his pupil had not been uncommonly deficient in penetration, he would soon have discovered his preceptor in some of his artifices; then adieu both to obedience and confidence. A false idea of the pleasures of liberty misled Rousseau. Children have not our abstract ideas of the pleasures of liberty; they do not, until they have suffered from ill-judged restraints, feel any strong desire to exercise what we call freewill; liberty is, with them, the liberty of doing cer-

* Emilius, vol. i. page 23.

tain specific things which they have found to be agreeable; liberty is not the general idea of pleasure, in doing whatever they WILL *to do*. Rousseau desires, that *we should not let our pupil know, that in doing our will he is obedient to us.* But why? Why should we not let a child know the truth? If we attempt to conceal it, we shall only get into endless absurdities and difficulties. Lord Kames tells us, that he was acquainted with a couple, who, in the education of their family, pursued as much as possible Rousseau's plan. One evening, as the father was playing at chess with a friend, one of his children, a boy of about four years old, took a piece from the board, and ran away to play with it. The father, whose principles would not permit him to assert his right to his own chess-man, began to bargain for his property with his son. "Harry," said he, "let us have back the man, and there's an apple for you." The apple was soon devoured, and the child returned to the chess-board and kidnapped another chess-man. What this man's ransom might be, we are not yet informed; but Lord Kames tells us, that the father was obliged to suspend his game at chess until his son was led away to his supper. Does it seem just, that parents should become slaves to the liberties of their children? If one set of beings or another should sacrifice a portion of happiness, surely those who are the most useful, and the most capable of increasing the knowledge and the pleasures of life, have some claim to a preference; and when the power is entirely in their own hands, it is most probable that they will defend their own interests. We shall not, like many who have spoken of Rousseau, steal from him after having abused him. His remarks upon the absurd and tyrannical restraints which are continually imposed upon children by the folly of nurses and servants, or by the imprudent anxiety of parents and preceptors, are excellent. Whenever Rousseau is in the right, his eloquence is irresistible.

To determine what degree of obedience it is just to require from children, we must always consider what degree of reason they possess: whenever we can use reason, we should never use force; it is only while children are too young to comprehend reason, that we should expect from them implicit submission. The means which have been pointed out for teaching the

habit of obedience, must not be depended upon for teaching any thing more than the mere habit. When children begin to reason, they do not act merely from habit; they will not be obedient at this age, unless their understanding is convinced that it is for their advantage to be so. Wherever we can explain the reasons for any of our requests, we should attempt it; but whenever these cannot be fully explained, it is better not to give a partial explanation; it will be best to say steadily, "You cannot understand this now, you will, perhaps, understand it some time hence." Whenever we tell children, that we forbid them to do such and such things for any particular reason, we must take care that the reason assigned is adequate, and that it will in all cases hold good. For instance, if we forbid a boy to eat unripe fruit, *because it will make him ill*, and if afterward the boy eat some unripe gooseberries without feeling ill in consequence of his disobedience, he will doubt the truth of the person who prohibited unripe fruit; he will rather trust his own partial experience than any assertions. The idea of *hurting his health* is a general idea, which he does not yet comprehend. It is more prudent to keep him out of the way of unripe gooseberries, than to hazard at once his obedience and his integrity. We need not expatiate further; the instance we have given, may be readily applied to all cases in which children have it in their power to disobey with *immediate* impunity, and, what is still more dangerous, with the certainty of obtaining immediate pleasure. The gratification of their senses, and the desire of bodily exercise, ought never to be unnecessarily restrained. Our pupils should distinctly perceive, that we wish to make them happy; and every instance in which they discover that obedience has really made them happier, will be more in our favour than all the lectures we could preach. From the past, they will judge of the future. Children who have for many years experienced that their parents have exacted obedience only to such commands as proved to be ultimately wise and beneficial, will surely be disposed, from habit, from gratitude, and yet more from prudence, to consult their parents in all the material actions of their lives.

We may observe, that the spirit of contradiction, which sometimes breaks out in young people the mo-

ment they are able to act for themselves, arises frequently from slight causes in their early education. Children who have experienced that submission to the will of others has constantly made them unhappy, will necessarily, by reasoning inversely, imagine, that felicity consists in following their own free will.

The French poet Boileau was made very unhappy by neglect and restraint during his education: when he grew up, he would never agree with those who talked to him of the pleasures of childhood.* "Peut on," disoit ce poëte amoureux de l'indépendence, "ne pas regarder comme un grand malheur, le chagrin continuel et particulier à cet age, de ne jamais faire sa volonté?" It was in vain, continues his biographer, to boast to him of the advantages of this happy constraint, which saves youth from so many follies. "What signifies our knowing the value of our chains when we have shaken them off, if we feel nothing but their weight while we wear them?" the galled poet used to reply. Nor did Boileau enjoy his freedom, though he thought with such horror of his slavery. He declared, that if he had it in his choice, either to be born again upon the hard conditions of again going through his childhood, or not to exist, he would rather not exist: but he was not happy during any period of his existence; he quarrelled with all the seasons of life; "all seemed to him equally disagreeable; youth, manhood, and old age, are each subject, he observed, to impetuous passions, to care, and to infirmities." Hence we may conclude, that the severity of his education had not succeeded in teaching him to submit philosophically to necessity, or yet in giving him much enjoyment from that *liberty* which he so much coveted. Thus it too often happens, that an imaginary value is set upon the exercise of the freewill by those who, during their childhood, have suffered under injudicious restrictions. Sometimes the love of freewill is so uncontrollably excited, even during childhood, that it breaks out, unfortunately both for the pupils and the preceptors, in the formidable shape of obstinacy.

Of all the faults to which children are subject, there is none which is more difficult to cure, or more easy to prevent, than obstinacy. As it is early observed by those who are engaged in education, it is sometimes

* Histoire des Membres de l'Académie, par M. d'Alembert. Tome troisieme, p. 24.

supposed to be inherent in the temper; but, so far from being naturally obstinate, infants show those strong propensities to sympathy and imitation which prepare them for an opposite character. The folly of the nurse, however, makes an intemperate use of these happy propensities. She perpetually torments the child to exert himself for her amusement; all his senses and all his muscles she commands. He must see, hear, talk or be silent, move or be still, when she thinks proper; and often with the desire of amusing her charge, or of showing him off to the company, she disgusts him with voluntary exertion. Before young children have completely acquired the use of their limbs, they cannot perform feats of activity or of dexterity at a moment's warning. Their muscles do not instantaneously obey their will; the efforts they make are painful to themselves; the awkwardness of their attempts is painful to others; the delay of the body is often mistaken for the reluctance of the mind; and the impatient tutor pronounces the child to be obstinate, while all the time he may be doing his utmost to obey. Instead of growing angry with the helpless child, it would be surely more wise to assist his feeble and inexperienced efforts. If we press him to make unsuccessful attempts, we shall associate pain both with voluntary exertion and with obedience.

Little W—— (a boy of three years old) was one day asked by his father to jump. The boy stood stock still. Perhaps he did not know the meaning of the word jump. The father, instead of pressing him further, asked several other children who happened to be in the room to jump, and he jumped along with them: all this was done playfully. The little boy looked on silently for a short time, and seemed much pleased. "Papa jumps!" he exclaimed. His brother L—— lifted him up two or three times; and he then tried to jump, and succeeded: from sympathy he learned the command of the muscles which were necessary to his jumping, and to his obedience. If this boy had been importuned, or forced to exert himself, he might have been thus taught obstinacy, merely from the imprudent impatience of the spectators. The reluctance to stop when a child is once in motion, is often mistaken for obstinacy: when he is running, singing, laughing, or talking, if you suddenly command him to stop, he can-

not instantly obey you. If we reflect upon our own minds, we may perceive that we cannot, without considerable effort, turn our thoughts suddenly from any subject on which we have been long intent. If we have been long in a carriage, the noise of the wheels sounds in our ear, and we seem to be yet going on after the carriage has stopped. We do not pretend to found any accurate reasoning upon analogy; but we may observe, the difficulty with which our minds are stopped or put in motion, resembles the vis-inertiæ of the body.

W—— (three years old) had for some minutes vociferated two or three words of a song, until the noise could be no longer patiently endured; his father called to him, and desired that he would not make so much noise. W—— paused for a moment, but then went on singing the same words. His brother said, Hush! W—— paused for another second or two; but then went on with his roundelay. In his countenance there was not the slightest appearance of ill-humour. One of his sisters put him upon a board which was lying on the floor, and which was a little unsteady; as he walked cautiously along this board, his attention was occupied, and he forgot his song.

This inability suddenly to desist from any occupation, may easily grow into obstinacy, because the pain of checking themselves will be great in children, and this pain will be associated with the commands of those who govern them; it is better to stop them by presenting new objects to their attention, than by the stimulus of a peremptory voice. Children should never be accused of obstinacy; the accusation cannot cure, but may superinduce the disease. If, unfortunately, they have been suffered to contract a disposition to this fault, it may be cured by a little patience and good temper. We have mentioned how example and sympathy may be advantageously used; praise and looks of affection, which naturally express our feeling when children do right, encourage the slightest efforts to obey; but we must carefully avoid showing any triumph in our victory over yielding stubbornness.

"Ay, I knew you would do what we desired at last, you might as well have done it at first," is a common nursery-maid's speech, which is well caculated to pique the pride of a half-subdued penitent. When children

are made ashamed of submission, they will become intrepid, probably unconquerable rebels.

Neither rewards nor punishments will then avail; the pupil perceives, that both the wit and the strength of his master are set in competition with his: at the expense of a certain degree of pain, he has the power to resist as long as he thinks proper; and there is scarcely any degree of pain that a tutor dares to inflict, which an obstinate hero is not able to endure. With the spirit of a martyr, he sustains reproaches and torture. If, at length, the master changes his tone, and tries to soften and win the child to his purpose, his rewards are considered as bribes: if the boy really thinks that he is in the right to rebel, he must yield his sense of honour to the force of temptation when he obeys. If he has formed no such idea of honour, he perhaps considers the reward as the price of his submission; and, upon a future occasion, he will know how to raise that price by prolonging his show of resistance. Where the child has formed a false idea of honour, his obstinacy is only mistaken resolution; we should address ourselves to his understanding, and endeavour to convince him of his error. Where the understanding is convinced, and the *habit* of opposition still continues, we should carefully avoid calling his false associations into action; we should not ask him to do any thing for which he has acquired an habitual aversion; we should alter our manner of speaking to him, that neither the tones of our voice, the words, or the looks, which have been his customary signals for resistance, may recall the same feelings to his mind: placed in new circumstances, he may acquire new habits, and his old associates will in time be forgotten. Sufficient time must, however, be allowed; we may judge when it is prudent to try him on any old dangerous subjects, by many symptoms: by observing the degree of alacrity with which he obeys on indifferent occasions; by observing what degree of command he has acquired over himself in general; by observing in what manner he judges of the conduct and temper of other children in similar circumstances; by observing whether the consciousness of his former self continues in full force. Children often completely forget what they have been.

Where obstinacy arises from principle, if we may use

the expression, it cannot be cured by the same means which are taken to cure that species of the disease which depends merely upon habit. The same courage and fortitude which in one case we reprobate, and try to conquer with all our might, in the other we admire and extol. This should be pointed out to children; and if they act from a love of glory, as soon as they perceive it, they will follow that course which will secure to them the prize.

Charles XII., whom the Turks, when incensed by his disobedience to the grand seignior, called Demir-bash, or *head of iron*, showed early symptoms of this headstrong nature; yet in his childhood, if his preceptor* named but glory, any thing could be obtained from Charles. Charles had a great aversion to learning Latin; but when he was told that the kings of Poland and Denmark understood it, he began to study it in good earnest. We do not mean to infer, that emulation with the kings of Poland and Denmark was the best possible motive which Charles XII.'s preceptor could have used, to make the young prince conquer his aversion to Latin; but we would point out, that where the love of glory is connected with obstinate temper, the passion is more than a match for the temper. Let us but enlighten this love of glory, and we produce magnanimity in the place of obstinacy. Examples, in conversation and in books, of great characters, who have not been ashamed to change their opinions, and to acknowledge that they have been mistaken, will probably make a great impression upon young people; they will from these learn to admire candour, and will be taught that it is *mean* to persist in the wrong. Examples from books must, however, be also uniformly supported by examples in real life; preceptors and parents must practise the virtues which they preach. It is said that the amiable Fenelon acquired the most permanent influence over his pupil, by the candour with which he always treated him. Fenelon did not think that he could lessen his dignity by confessing himself to be in the wrong.

Young people who have quick abilities, and who happen to live with those who are inferior to them either in knowledge or in capacity, are apt to become positive

* Voltaire's Hist. Charles XII.

and self-willed; they measure all the world by the individuals with whom they have measured themselves; and, as they have been convinced that they have been in the right in many cases, they take it for granted that their judgment must be always infallible. This disease may be easily cured; it is only necessary to place the patient among his superiors in intellect, his own experience will work his cure: he liked to follow his will, because his judgment had taught him that he might trust more securely to the *tact* of his own understanding, than to the decision of others. As soon as he discovers more sense in the arguments of his companions, he will listen to them; and if he finds their reason superior to his own, he will submit. A preceptor who wishes to gain ascendency over a clever positive boy, must reason with all possible precision, and must always show that he is willing to be decided by the strongest arguments which can be produced. If he ever prophesies, he sets his judgment at stake; therefore he should not prophesy about matters of chance, but rather in affairs where he can calculate with certainty. If his prophecies are frequently accomplished, his pupil's confidence in him will rapidly increase; and if he desires that confidence to be permanent, he will not affect mystery, but he will honestly explain the circumstances by which he formed his opinions. Young people who are accustomed to hear and to give reasons for their opinions, will not be violent and positive in assertions; they will not think that the truth of any assertion can be manifested by repeating over the same words a thousand times; they will not ask how many people are of this or that opinion, but rather what arguments are produced on each side. There is very little danger that any people, whether young or old, should continue to be positive, who are in the habit of exercising their reasoning faculty.

It has been often observed that extremely good-humoured, complaisant children, when they grow up, become ill-tempered; and young men who are generally liked in society as pleasant companions, become surly, tyrannical masters in their own families, positive about mere trifles, and anxious to subjugate the *wills* of all who are any wise dependant upon them. This character has been nicely touched by De Boissy, in his comedy called "Dehors trompeurs."

We must observe, that while young people are in

company, and under the immediate influence of the excitements of novelty, numbers, and dissipation, it is scarcely possible to form a just estimate of the goodness of their temper. Young men who are the most ready to yield their inclinations to the humour of their companions, are not therefore to be considered as of really compliant dispositions ; the idle or indolent, who have no resources in their own minds, and no independent occupations, are victims to the yawning demon of ennui the moment they are left in solitude. They consequently dread so heartily to be left alone, that they readily give up a portion of their liberty to purchase the pleasures and mental support which society affords. When they give up their wishes, and follow the lead of the company, they in fact give up but very little; their object is amusement; and this obtained, their time is sacrificed without regret. On the contrary, those who are engaged in literary or professional pursuits, set a great value upon their time, and feel considerable reluctance to part with it without some adequate compensation ; they must consequently be less complaisant companions, and by the generality of superficial observers, would be thought, perhaps, less complying in their tempers, than the idle and dissipated. But when the idle man has passed the common season for dissipation, and is settled in domestic life, his spirits flag from the want of his usual excitements ; and, as he has no amusements in his own family to purchase by the polite sacrifice of his opinion or his will, he is not inclined to complaisance. The pleasure of exercising his freewill becomes important in his eyes ; he has few pleasures, and of those few he is tenacious. He has been accustomed to submit to others in society ; he is proud to be master at home ; he has few emotions, and the emotion caused by the exertion of command becomes agreeable and necessary to him. Thus many of the same causes which make a young man a pleasant companion abroad, tend naturally to make him a tyrant at home. This perversity and positiveness of temper ultimately arises from the want of occupation, and from deficient energy of mind. We may guard against these evils by education : when we see a playful, active child, we have little fear of his temper. " Oh, he will certainly be good-tempered, he is the most obedient, complying creature in the world, he'll do any thing you ask him." But let

us cultivate his understanding, and give him tastes which shall occupy and interest him agreeably through life, or else this sweet, complying temper will not last till he is thirty.

An ill-cured obstinacy of temper, when it breaks out after young people have arrived at years of discretion, is terrible. Those who attempt to conquer obstinacy in children by bodily pain, or by severe punishments of any kind, often appear to succeed, and to have entirely eradicated, when they have merely suppressed the disease for a time. As soon as the child that is intimidated by force or fear is relieved from restraint, he will resume his former habits; he may change the mode of showing it, but the disposition will continue the same. It will appear in various parts of the conduct, as the limbs of the giant appeared unexpectedly at different periods and in different parts of the Castle of Otranto.

CHAPTER VIII.

ON TRUTH.

It is not necessary here to pronounce a panegyric upon truth; its use and value are thoroughly understood by all the world; but we shall endeavour to give some practical advice, which may be of service in educating children, not only to the love, but to the habits, of integrity. These are not always found, as they ought to be, inseparable.

Rousseau's eloquence, and Locke's reasoning, have sufficiently reprobated, and it is to be hoped have exploded, the system of lecturing children upon morality; of giving them precepts and general maxims which they do not understand, and which they cannot apply. We shall not produce long quotations from books which are in everybody's hands.* There is one particular in which Rousseau especially, and most other authors who

* We refer to Locke's thoughts concerning Education, and Rousseau's Emilius, vol. i.

have written upon education, have given very dangerous counsel; they have counselled parents to teach truth by falsehood. The privilege of using contrivance and ingenious deceptions, has been uniformly reserved for preceptors; and the pupils, by moral delusions, and the theatric effect of circumstances treacherously arranged, are to be duped, surprised, and cheated into virtue. The dialogue between the gardener and Emilius about the Maltese melon-seed, is an instance of this method of instruction. Honest Robert, the gardener, in concert with the tutor, tells poor Emilius a series of lies, prepares a garden, "choice Maltese melon-seed," and "worthless beans," all to cheat the boy into just notions of the rights of property, and the nature of exchange and barter.

Part of the *artificial course of experience* in that excellent work on education, Adela and Theodore, is defective upon the same principle. There should be no moral delusions; no *artificial* course of experience; no plots laid by parents to make out the truth; no listening fathers, mothers, or governesses; no pretended confidence, or perfidious friends; in one word, no falsehood should be practised: that magic which cheats the senses, at the same time confounds the understanding. The spells of Prospero, the strangeness of the isle, perplex and confound the senses and understanding of all who are subjected to his magic, till at length, worked by force of wonders into credulity, his captives declare that they will believe any thing; "that there are men dewlapt like bulls; and what else does want credit," says the Duke Anthonio, "come to me, and I'll be sworn 'tis true."

Children whose simplicity has been practised upon by the fabling morality of their preceptors, begin by feeling something like the implicit credulity of Anthonio; but the arts of the preceptors are quickly suspected by their subjects, and the charm is for ever reversed. When once a child detects you in falsehood, you lose his confidence; his incredulity will then be as extravagant as his former belief was gratuitous. It is in vain to expect, by the most eloquent manifestoes, or by the most secret leagues offensive and defensive, to conceal your real views, sentiments, and actions, from children. Their interest keeps their attention continually awake; not a word, not a look, in which they are concerned,

escapes them ; they see, hear, and combine, with sagacious rapidity; if falsehood be in the wind, detection hunts her to discovery.

Honesty is the best policy, must be the maxim in education, as well as in all the other affairs of life. We must not only be exact in speaking truth to our pupils, but to everybody else ; to acquaintance, to servants, to friends, to enemies. It is not here meant to enter any overstrained protest against the common phrases and forms of politeness; the current coin may not be pure; but when once its alloy has been ascertained, and its value appreciated, there is no fraud, though there may be some folly, in continuing to trade upon equal terms with our neighbours, with money of high nominal, and scarcely any real value. No fraud is committed by a gentleman's saying he is *not at home*, because no deception is intended; the words are silly, but they mean, and are understood to mean, nothing more than that the person in question does not choose to see the visiters who knock at his door. "I am, sir, your obedient and humble servant," at the end of a letter, does not mean that the person who signs the letter is a servant, or humble, or obedient, but it simply expresses that he knows how to conclude his letter according to the usual form of civility. Change this absurd phrase and welcome ; but do not let us, in the spirit of Draco, make no distinction between errors and crimes. The foibles of fashion or folly are not to be treated with the detestation due to hypocrisy and falsehood ; if small faults are to incur such grievous punishments, there can, indeed, be none found sufficiently severe for great crimes ; great crimes, consequently, for want of adequate punishment, will increase, and the little faults, that have met with disproportionate persecution, will become amiable and innocent in the eyes of commiserating human nature. It is not difficult to explain to young people the real meaning, or rather the nonsense, of a few complimentary phrases ; their integrity will not be increased or diminished by either saying, or omitting to say, "I am much obliged to you," or, "I shall be very happy to see you at dinner," &c. We do not mean to include in the harmless list of compliments, any expressions which are meant to deceive ; the common custom of the country, and of the society in which we live, sufficiently regulates the style of complimentary language ; and there

are few so ignorant of the world as seriously to misunderstand this, or to mistake civility for friendship.

There is a story told of a Chinese mandarin, who paid a visit to a friend at Paris, at the time when Paris was the seat of politeness. His wellbred host, on the first evening of his arrival, gave him a handsome supper, lodged him in the best bedchamber, and when he wished him a good night, among other civil things, said he hoped the mandarin would, during his stay at Paris, consider that house as his own. Early next morning, the polite Parisian was awakened by the sound of loud hammering in the mandarin's bedchamber; on entering the room, he found the mandarin and some masons hard at work, throwing down the walls of the house. "You rascals, are you mad?" exclaimed the Frenchman to the masons. "Not at all, my dear friend," said the Chinese man, soberly; "I set the poor fellows to work; this room is too small for my taste; you see I have lost no time in availing myself of your goodness. Did not you desire me to use this house as if it were my own, during my stay at Paris?"—"Assuredly, my dear friend, and so I hope you will," replied the French gentleman; "the only misfortune here is, that I did not understand Chinese, and that I had no interpreter." They found an interpreter, or a Chinese dictionary, and when the Parisian phrase was properly translated, the mandarin, who was an honest man, begged his polite host's pardon for having pulled down the partition. It was rebuilt; the mandarin learned French, and the two friends continued upon the best terms with each other during the remainder of the visit.

The Chesterfieldian system of endeavouring to please by dissimulation is obviously distinguishable by any common capacity from the usual forms of civility. There is no hope of educating young people to a love of integrity in any family where this practice is adopted. If children observe that their parents deceive common acquaintance by pretending to like the company and to esteem the characters of those whom they really think disagreeable and contemptible, how can they learn to respect truth? How can children believe in the praise of their parents, if they detect them in continual flattery towards indifferent people? It may be thought by latitudinarians in politeness that we are too rigid in expecting this strict adherence to truth from people who

live in society; it may be said that in practical education, no such Utopian ideas of perfection should be suggested. If we thought them Utopian, we certainly should not waste our time upon them; but we do not here speak theoretically of what may be done, we speak of what has been done. Without the affectation of using a more sanctified language than other people—without departing from the common forms of society—without any painful, awkward efforts, we believe that parents may, in all their conversation in private and in public, set their children the uniform example of truth and integrity.

We do not mean that the example of parents can alone produce this effect; a number of other circumstances must be combined. Servants must have no communication with children, if you wish to teach them the habit of speaking truth. The education, and custom, and situation of servants, are at present such, that it is morally impossible to depend upon their veracity in their intercourse with children. Servants think it good-natured to try to excuse and conceal all the little faults of children; to give them secret indulgences, and even positively to deny facts, in order to save them from blame or punishment. Even when they are not fond of the children, their example must be dangerous, because servants do not scruple to falsify for their own advantage; if they break any thing, what a multitude of equivocations! If they neglect any thing, what a variety of excuses! What evasions, in actions or in words, do they continually invent!

It may be said, that as the Spartans taught their children to detest drunkenness, by showing them intoxicated Helots, we can make falsehood odious and contemptible to our pupils, by the daily example of its mean deformity. But if children, before they can perceive the general advantage of integrity, and before they can understand the utility of truth, see the partial, immediate success of falsehood, how can they avoid believing in their own experience? If they see that servants escape blame and screen themselves from punishment by telling falsehoods, they not only learn that falsehood preserves from pain, but they feel obliged to those who practise it for their sakes; thus it is connected with the feelings of affection and of gratitude in their hearts, as well as with a sense of pleasure and safety. When

servants have exacted promises from their *protégés*, those promises cannot be broken without treachery; thus deceit brings on deceit, and the ideas of truth and falsehood become confused and contradictory. In the chapter upon servants we have expatiated upon this subject, and have endeavoured to point out how all communication between children and servants may be most effectually prevented. To that chapter, without further repetition, we refer. And now that we have adjusted the preliminaries concerning parents and servants, we may proceed with confidence.

When young children first begin to speak, from not having a sufficient number of words to express their ideas, or from not having annexed precise ideas to the words which they are taught to use, they frequently make mistakes, which are attributed to the desire of deceiving. We should not precipitately suspect them of falsehood; it is some time before they perfectly understand what we mean by truth. Small deviations should not be marked with too much rigour; but whenever a child relates *exactly* any thing which he has seen, heard, or felt, we should listen with attention and pleasure, and we should not show the least doubt of his veracity. Rousseau is perfectly right in advising that children should never be questioned in any circumstances upon which it can be their interest to deceive. We should, at least, treat children with the same degree of wise lenity which the English law extends to all who have arrived at years of discretion. No criminal is bound to accuse himself. If any mischief has been committed, we should never, when we are uncertain by whom it has been done, either directly accuse, or betray injurious suspicions. We should neither say to the child, "I believe you have done this," nor, "I believe you have not done this;" we should say nothing; the mischief is done, we cannot repair it: because a glass is broken, we need not spoil a child; we may put glasses out of his reach in future. If it should, however, happen that a child voluntarily comes to us with the history of an accident, may no love of goods or chattels, of windows, of china, or even of looking-glasses, come in competition with our love of truth! An angry word, an angry look, may intimidate the child, who has summoned all his little courage to make this confession. It is not requisite that parents should pretend to be pleased

and gratified with the destruction of their furniture,—but they may, it is to be hoped, without dissimulation, show that they set more value upon the integrity of their children than upon a looking-glass, and they will "keep their temper still, though china fall."

H——, one day when his father and mother were absent from home, broke a looking-glass. As soon as he heard the sound of the returning carriage, he ran and posted himself at the hall door. His father, the moment he got out of the carriage, beheld his erect figure, and pale but intrepid countenance. "Father," said the boy, "I have *broke* the best looking-glass in your house!" His father assured him that he would rather all the looking-glasses in his house should be broken, than that one of his children should attempt to make an excuse. H—— was most agreeably relieved from his anxiety by the kindness of his father's voice and manner, and still more so, perhaps, by perceiving that he rose in his esteem. When the glass was examined, it appeared that the boy had neglected to produce all the circumstances in his own favour. Before he had begun to play at ball, he had had the precaution to turn the back of the looking-glass towards him; his ball, however, accidentally struck against the wooden back, and broke the glass. H—— did not make out this favourable state of the case for himself at first; he told it simply after the business was settled, seeming much more interested about the fate of the glass, than eager to exculpate himself.

There is no great danger of teaching children to do mischief by this indulgence to their accidental misfortunes. When they break or waste any thing from pure carelessness, let them, even when they speak the truth about it, suffer the natural consequences of their carelessness; but at the same time praise their integrity, and let them distinctly feel the difference between the slight inconvenience to which they expose themselves by speaking the truth, and the great disgrace to which falsehood would subject them. The pleasure of being esteemed and trusted is early felt, and the consciousness of deserving confidence is delightful to children; but their young fortitude and courage should never be exposed to severe temptations. It is not sufficient to excite an admiration of truth by example, by eloquent praise, or by the just rewards of esteem and affection; we must take care to form the habits at the same time

that we inspire the love of this virtue. Many children admire truth, and feel all the shame of telling falsehoods, who yet, either from habit or from fear, continue to tell lies. We must observe, that though the taste of praise is strong in childhood, yet it is not a match for any of the bodily appetites, when they are strongly excited. Those children who are restrained as to the choice or the quantity of their food, usually think that eating is a matter of vast consequence, and they are strongly tempted to be dishonest to gratify their appetites. Children do not understand the prudential maxims concerning health, upon which these restraints are founded; and if they can, "by any indirection," obtain things which gratify their palate, they will. On the contrary, young people who are regularly let to eat and drink as much as they please, can have no temptation from hunger and thirst to deceive; if they partake of the usual family meals, and if there are no whimsical distinctions between wholesome and unwholesome dishes, or epicurean distinctions between rarities and plain food, the imagination and the pride of children will not be roused about eating. Their pride is piqued, if they perceive that they are prohibited from touching what *grown-up people* are privileged to eat; their imagination is set to work by seeing any extraordinary difference made by judges of eating between one species of food and another. In families where a regularly good table is kept, children accustomed to the sight and taste of all kinds of food are seldom delicate, capricious, or disposed to exceed; but in houses where entertainments are made from time to time with great bustle and anxiety, fine clothes, and company-manners, and company-faces, and all that politeness can do to give the appearance of festivity, deceive children at least, and make them imagine that there is some extraordinary joy in seeing a greater number of dishes than usual upon the table. Upon these occasions, indeed, the pleasure is to them substantial; they eat more, they eat a greater variety, and of things that please them better than usual; the pleasure of eating is associated with unusual cheerfulness, and thus the imagination and the reality conspire to make them epicures. To these children, the temptations to deceive about sweetmeats and dainties are beyond measure great, especially as illbred strangers commonly show their affection for them by pressing them to eat what

they are not allowed to say "*If you please*" to. Rousseau thinks all children are gluttons. All children may be rendered gluttons; but few who are properly treated with respect to food, and who have any literary tastes, can be in danger of continuing to be fond of eating. We therefore, without hesitation, recommend it to parents never to hazard the truth and honour of their pupils by prohibitions, which seldom produce any of the effects that are expected.

Children are sometimes injudiciously restrained with regard to exercise; they are required to promise to keep within certain boundaries when they are sent out to play; these promises are often broken with impunity, and thus the children learn habits of successful deceit. Instead of circumscribing their play-grounds, as they are sometimes called, by narrow inconvenient limits, we should allow them as much space as we can with convenience, and at all events exact no promises. We should absolutely make it impossible for them to go without detection into any place which we forbid. It requires some patience and activity in preceptors to take all the necessary precautions in issuing orders, but these precautions will be more useful in preserving the integrity of their pupils, than the most severe punishments that can be devised. We are not so unreasonable as to expect, with some theoretic writers on education, that tutors and parents should sacrifice the whole of their time to the convenience, amusement, and education of their pupils. This would be putting one set of beings "*sadly over the head of another:*" but if parents would, as much as possible, mix their occupations and recreations with those of their children, besides many other advantages which have been elsewhere pointed out with respect to the improvement of the understanding, they would secure them from many temptations to falsehood. They should be encouraged to talk freely of all their amusements to their parents, and to ask them for whatever they want to complete their little inventions. Instead of banishing all the freedom of wit and humour by the austerity of his presence, a preceptor, with superior talents, and all the resources of property in his favour, might easily become the *arbiter deliciarum* of his pupils.

When young people begin to taste the pleasures of praise, and to feel the strong excitations of emulation

and ambition, their integrity is exposed to a new species of temptation. They are tempted, not only by the hope of obtaining "well-earned praise," but by the desire to obtain praise without the labour of earning it. In large schools, where boys assist each other in their literary exercises, and in all private families where masters are allowed to show off the accomplishments of young gentlemen and ladies, there are so many temptations to fraudulent exhibitions, that we despair of guarding against their consequences. The best possible method is to inspire children with a generous contempt for flattery, and to teach them to judge impartially of their own merits. If we are exact in the measure of approbation which we bestow, they will hence form a scale by which they can estimate the sincerity of other people. It is said* that the preceptor of the Duke of Burgundy succeeded so well in inspiring him with disdain for unmerited praise, that when the duke was only nine years old he one day called his tutor to account for having concealed some of his childish faults; and when this promising boy and singular prince was asked, "Why he disliked one of his courtiers," he answered, "Because he flatters me." Anecdotes like these will make a useful impression upon children. The life of Cyrus, in the Cyropædia; several passages in Plutarch's Lives; and the lively, interesting picture which Sully draws of his noble-hearted master's love of truth, will strongly command the admiration of young people, if they read them at a proper time of life. We must, however, wait for this proper time; for if these things are read too early, they lose all their effect. Without any lectures upon the beauty of truth, we may, now and then in conversation, when occurrences in real life naturally lead to the subject, express with energy our esteem for integrity. The approbation which we bestow upon those who give proofs of integrity, should be quite in a different tone, in a much higher style of praise, than any commendations for trifling accomplishments; hence children will become more ambitious to obtain a reputation for truth, than for any other less honourable and less honoured qualification.

* See The Life of the Duke of Burgundy in Madame de la Fite's agreeable and instructive work for Children, "Contes, Drames, et Entretiens," &c.

We will venture to give two or three slight instances of the unaffected truth and simplicity of mind which we have seen in children educated upon these principles. No good-natured reader will suspect, that they are produced from ostentation: whenever the children, who are mentioned, see this in print, it is ten to one that they will not be surprised at their own good deeds. They will be a little surprised, probably, that it should have been thought worth while to record things which are only what they see and feel every day. It is this character of everyday goodness which we wish to represent; not any fine thoughts, fine sentiments, or fine actions, which come out for holyday admiration. We wish that parents, in reading any of these little anecdotes, may never exclaim, "Oh that's charming, that's surprising *for a child!*" but we wish that they may sometimes smile, and say, "That's very natural; I am sure *that* is perfectly true; my little boy, or my little girl, say and do just such things continually."

March, 1792. We were at Clifton; the river Avon ran close under the windows of our house in Prince's Place, and the children used to be much amused with looking at the vessels which came up the river. One night a ship, that was sailing by the windows, fired some of her guns; the children, who were looking out of the windows, were asked "why the light was seen when the guns were fired before the noise was heard?" C——, who at this time was nine years old, answered, "Because light comes quicker to the eye than sound to the ear." Her father was extremely pleased with this answer; but just as he was going to kiss her, the little girl said, "Father, the reason of my knowing it was, that L—— (her elder brother) just before had told it to me."

There is, it is usually found, most temptation for children to deceive when they are put in competition with each other, when their ambition is excited by the same object; but if the transient glory of excelling in quickness, or abilities of any sort, be much inferior to the permanent honour which is secured by integrity, there is, even in competition, no danger of unfair play.

March, 1792. One evening ——— called the children round the tea-table, and told them the following story, which he had just met with in "The Curiosities of Literature."

When the queen of Sheba went to visit king Solomon,

she one day presented herself before his throne with a wreath of real flowers in one hand, and a wreath of artificial flowers in the other hand; the artificial flowers were made so exactly to resemble nature, that at the distance at which they were held from Solomon, it was scarcely possible that his eye could distinguish any difference between them and the natural flowers; nor could he, at the distance at which they were held from him, know them asunder by their smell. "Which of these two wreaths," demanded the queen of Sheba, "is the work of nature?" Solomon reflected for some minutes; and how did he discover which was real? S—— (five years old) *replied*, "Perhaps he went out of the room very *softly*, and if the woman stood near the door, as he went near her, he might *see better*."

Father. But Solomon was not to move from his place.

S——. Then he might wait till the woman was tired of holding them, and then perhaps she might lay them down on the table, and then perhaps he might *see better*.

Father. Well, C——, what do you say?

C——. I think he might have looked at the stalks, and have seen which looked stiff like wire, and which were bent down by the weight of the natural flowers.

Father. Well, H——?

H——. (ten years old.) I think he might send for a great pair of bellows, and blow, blow, till the real leaves dropped off.

Father. But would it not have been somewhat uncivil of Solomon to *blow, blow*, with his great pair of bellows, full in the queen of Sheba's face?

H——. (doubting.) Yes, yes. Well, then he might have sent for a telescope, or a magnifying glass, and looked through it; and then he could have seen which were the real flowers, and which were artificial.

Father. Well, B——, and what do you say?

B——. (eleven years old.) He might have waited till the queen moved the flowers, and then, if he listened, he might hear the rustling of the artificial ones.

Father. S——, have you any thing more to say?

S—— repeated the same thing that B—— had said; his attention was dissipated by hearing the other children speak. During this pause, while S—— was trying to collect his thoughts, Mrs. E—— whispered to somebody near her, and accidentally said the word *animals* loud enough to be overheard.

Father. Well, H——, you look as if you had something to say?

H——. Father, I heard my mother say something, and *that* made me think of the rest.

Mrs. E—— shook hands with H——, and praised him for this instance of integrity. H—— then said that "he supposed Solomon thought of some *animal* which would feed upon flowers, and sent it to the two nosegays; and then the animal would stay upon the real flowers."

Father. What animal?

H——. A fly.

Father. Think again.

H——. A bee.

Father. Yes.

The story says, that Solomon, seeing some bees hover about the window, ordered the window to be thrown open, and watched upon which wreath of flowers the bees settled.

August 1st, 1796. S—— (nine years old), when he was reading in Ovid the fable of Perseus and Andromeda, said that he wondered that Perseus fought with the monster; he wondered that Perseus did not turn him into stone at once with his Gorgon shield. We believe that S—— saw that his father was pleased with this observation. A few days afterward somebody in the family recollected Mr. E——'s having said, that when he was a boy he thought Perseus a simpleton for not making use of the Gorgon's head to turn the monster into stone. We were not sure whether S—— had heard Mr. E—— say this or not; Mr. E—— asked him whether he recollected to have heard any such thing. S—— answered, without hesitation, that he did remember it.

When children have formed habits of speaking truth, and when we see that these habits are grown quite easy to them, we may venture to question them about their thoughts and feelings; this must, however, be done with great caution, but without the appearance of anxiety or suspicion. Children are alarmed if they see that you are very anxious and impatient for their answer; they think that they hazard much by their reply; they hesitate, and look eagerly in your face, to discover by your countenance what they ought to think and feel, and what sort of answer you expect. All who are governed by any species of fear are disposed to equivoca-

tion. Among the lower class of Irish labourers and *under-tenants*, a class of people who are much oppressed, you can scarcely meet with any man who will give you a direct answer to the most indifferent question; their whole ingenuity, and they have a great deal of ingenuity, is upon the *qui vive* with you the instant you begin to speak; they either pretend not to hear, that they may gain time to think, while you repeat your question, or they reply to you with a fresh question, to draw out your remote meaning; for they, judging by their own habits, always think you have a remote meaning; and they never can believe that your words have no intention to insnare. Simplicity puzzles them much more than wit: for instance, if you were to ask the most direct and harmless question, as, "Did it rain yesterday?" the first answer would probably be, "Is it yesterday you mean?"—"Yes."—"Yesterday! No, please your honour I was not at the bog at all yesterday. Wasn't I after setting my potatoes? Sure I did not know your honour wanted me at all yesterday. Upon my conscience, there's not a man in the country, let alone all Ireland, I'd sooner serve than your honour, any day in the year; and they have belied me that went behind my back to tell your honour the contrary. If your honour sent after me, sure I never *got the word*, I'll take my affidavit, or I'd been at the bog."—"My good friend, I don't know what you mean about the bog; I only ask you whether it rained yesterday."—"Please your honour, I couldn't get a car and horse any way, to draw home my little straw, or I'd have had the house thatched long ago."—"Cannot you give me a plain answer to this plain question? Did it rain yesterday?" "Oh sure, I wouldn't go to tell your honour a lie about the matter. Sarrah much it rained yesterday after twelve o'clock, barring a few showers; but in the night there was a great fall of rain any how; and that was the reason prevented my going to Dublin yesterday, for fear the mistress's bandbox should get wet upon my cars. But, please your honour, if your honour's displeased about it, I'll not be waiting for a loading; I'll take my car and go to Dublin to-morrow for the slates, if that be what your honour means. Oh sure, I would not tell a lie for the entire price of the slates; I know very well it didn't rain to call rain yesterday. But after twelve o'clock, I don't say I noticed one way or other."

In this perverse and ludicrous method of beating about the bush, the man would persist till he had fairly exhausted your patience; and all this he would do, partly from cunning, and partly from that apprehension of injustice which he has been taught to feel by hard experience. The effects of the example of their parents are early and most strikingly visible in the children of this class of people in Ireland. The children, who are remarkably quick and intelligent, are universally addicted to lying. We do not here scruple or hesitate in the choice of our terms, because we are convinced that this unqualified assertion would not shock the feelings of the parties concerned. These poor children are not brought up to think falsehood a disgrace; they are praised for the ingenuity with which they escape from the cross-examination of their superiors; and their capacities are admired in proportion to the *acuteness*, or, as their parents pronounce it, '*cuteness*, of their equivocating replies. Sometimes (the *garçon**) the little boy of the family is despatched by his mother to the landlord's neighbouring bog or turf-rick, to *bring home*, in their phraseology, in ours to *steal*, a few turfs; if, upon this expedition, the little Spartan be detected, he is tolerably certain of being whipped by his mother, or some of his friends, upon his return home. "Ah, ye little brat! and what made ye tell the gentleman when he met ye, ye rogue, that ye were going to the rick? And what business had ye to go and belie me to his honour, ye unnatural piece of goods! I'll teach ye to make mischief through the country! So I will. Have ye got no better sense and manners at this time o' day, than to behave, when one trusts ye abroad, so like an innocent?" An innocent in Ireland, as formerly in England (witness the Rape of the Lock), is synonymous with a fool. "And fools and innocents shall still believe."

The associations of pleasure, of pride, and gayety, are so strong in the minds of these well-educated children, that they sometimes expect the very people who suffer by their dishonesty should sympathize in the self-complacency they feel from roguery. A gentleman riding near his own house in Ireland, saw a cow's head and forefeet appear at the *top of a ditch*, through a gap in the hedge by the road's side; at the same time he heard

* Pronounced gossoon.

a voice alternately threatening and encouraging the cow; the gentleman rode up closer to the scene of action, and he saw a boy's head appear behind the cow. "My good boy," said he, "that's a fine cow."—"Oh faith, that she is," replied the boy, "and I'm teaching her to get her own living, please your honour." The gentleman did not precisely understand the meaning of the expression, and had he directly asked for an explanation, would probably have died in ignorance; but the boy, proud of his cow, encouraged an exhibition of her talents; she was made to jump across the ditch several times; and this adroitness in breaking through fences was termed "getting her own living." As soon as the cow's education is finished, she may be sent loose into the world to provide for herself; turned to graze in the poorest pasture, she will be able and willing to live upon the fat of the land.

It is curious to observe how regularly the same moral causes produce the same temper and character. We talk of climate, and frequently attribute to climate the different dispositions of different nations: the climate of Ireland and that of the West Indies are not precisely similar, yet the following description, which Mr. Edwards, in his History of the West Indies, gives of the propensity to falsehood among the negro slaves, might stand, word for word, for a character of that class of the Irish people who, until very lately, actually, not metaphorically, called themselves *slaves*.

"If a negro is asked even an indifferent question by his master, he seldom gives an immediate reply; but affecting not to understand what is said, compels a repetition of the question, that he may have time to consider, not what is the true answer, but what is the most politic one for him to give."

Mr. Edwards assures us, that many of these unfortunate negroes learn cowardice and falsehood after they become slaves. When they first come from Africa, many of them show "a frank and fearless temper;"* but all distinction of character among the native Africans is soon lost, under the levelling influence of slavery. Oppression and terror necessarily produce meanness and deceit, in all climates and in all ages; and wherever fear is the governing motive in education, we must

* Edwards's History of the West Indies, vol. ii.

expect to find in children a propensity to dissimulation, if not confirmed habits of falsehood. Look at the true-born Briton under the government of a tyrannical pedagogue, and listen to the language of *inborn* truth; in the whining tone, in the pitiful evasion, in the stubborn falsehoods which you hear from the schoolboy, can you discover any of that innate dignity of soul which is the boasted national characteristic? Look again; look at the same boy in the company of those who inspire no terror; in the company of his schoolfellows, of his friends, of his parents; would you know him to be the same being? his countenance is open; his attitude erect; his voice firm; his language free and fluent; his thoughts are upon his lips; he speaks truth without effort, without fear. Where individuals are oppressed, or where they believe that they are oppressed, they combine against their oppressors, and oppose cunning and falsehood to power and force; they think themselves released from the compact of truth with their masters, and bind themselves in a strict league with each other; thus schoolboys hold no faith with their schoolmaster, though they would think it shameful to be dishonourable among each other. We do not think that these maxims are the peculiar growth of schools; in private families the same feelings are to be found under the same species of culture: if preceptors or parents are unjust or tyrannical, their pupils will contrive to conceal from them their actions and their thoughts. On the contrary, in families where sincerity has been encouraged by the voice of praise and affection, a generous freedom of conversation and countenance appears, and the young people talk to each other, and to their parents, without distinction or reserve; without any distinction but such as superior esteem and respect dictate. These are feelings totally distinct from servile fear: these feelings inspire the love of truth, the ambition to acquire and to preserve character.

The value of a character for truth should be distinctly felt by children in their own family: while they were very young, we advised that their integrity should not be tempted; as they grow up, trust should by degrees be put in them, and we should distinctly explain to them, that our confidence is to be deserved before it can be given. Our belief in any person's truth is not a matter of affection, but of experience and necessity;

we cannot doubt the assertions of any person whom we have found to speak uniformly the truth; we cannot believe any person, let us wish to do it ever so much, if we have detected him in falsehoods. Before we have had experience of a person's integrity, we may hope, or take it for granted, that he is perfectly sincere and honest; but we cannot feel more than *belief upon trust*, until we have actually seen his integrity tried. We should not pretend that we have faith in our pupils before we have tried them; we may hope from their habits, from the examples they have seen, and from the advantageous manner in which truth has always been represented to them, that they will act honourably; this hope is natural and just, but confidence is another feeling of the mind. The first time we trust a child, we should not say, "I am sure you will not deceive me; I can trust you with any thing in the world." This is flattery or folly; it is paying beforehand, which is not the way to get business done; why cannot we, especially as we are teaching truth, say the thing that is—"I *hope* you will not deceive me. If I find that you may be trusted, you know I shall be able to trust you another time: this must depend upon you, not entirely upon me." We must make ourselves certain, upon these occasions, how the child conducts himself; nor is it necessary to use any artifice, or to affect, from false delicacy, any security that we do not feel; it is better openly to say, "You see I do you the justice to examine carefully how you have conducted yourself; I wish to be able to trust you another time."

It may be said, that this method of strict inquiry reduces a trust to no trust at all, and that it betrays suspicion. If you examine evidently with the belief that a child has deceived you, certainly you betray injurious suspicion, and you educate the child very ill; but if you feel and express a strong desire to find that your pupil has conducted himself honourably, he will be glad and proud of the strictest scrutiny; he will feel that he has earned your future confidence; and this confidence, which he clearly knows how he has obtained, will be more valuable to him than all the belief upon trust which you could affect to feel. By degrees, after your pupil has taught you to depend upon him, your confidence will prevent the necessity of any examination into his conduct. This is the just and delightful reward of integ-

rity; children know how to feel and understand it thoroughly: besides the many restraints from which our confidence will naturally relieve them, they feel the pride of being trusted; the honour of having a character for integrity: nor can it be too strongly impressed upon their minds, that this character must be preserved, as it was obtained, by their own conduct. If one link in the chain of confidence be broken, the whole is destroyed. Indeed, where habits of truth are early formed, we may safely depend upon them. A young person who has never deceived, would see that the first step in falsehood costs too much to be hazarded. Let this appear in the form of calculation rather than of sentiment. To habit, to enthusiasm, we owe much of all our virtues—to reason more; and the more of them we owe to reason, the better. Habit and enthusiasm are subject to sudden or gradual changes—but reason continues for ever the same. As the understanding unfolds, we should fortify all our pupil's habits and virtuous enthusiasm by the conviction of their utility, of their being essential to the happiness of society in general, and conducive immediately to the happiness of every individual. Possessed of this conviction, and provided with substantial arguments in its support, young people will not be exposed to danger, either from sophistry or ridicule.

Ridicule certainly is not the test of truth; but it is a test which truth sometimes finds it difficult to stand. Vice never "bolts her arguments" with more success than when she assumes the air of raillery and the tone of gayety. All vivacious young people are fond of wit; we do not mean children, for they do not understand it. Those who have the best capacities, and the strictest habits of veracity, often appear to common observers absolutely stupid, from their aversion to any play upon words, and from the literal simplicity with which they believe every thing that is asserted. A remarkably intelligent little girl of four years old, who had never in her own family been used to the common phrases which sometimes pass for humour, happened to hear a gentleman say, as he looked out of the window one rainy morning, "It rains cats and dogs to-day." The child, with a surprised but believing look, immediately went to look out of the window to see the phenomenon. This extreme simplicity in childhood is some-

times succeeded in youth by a strong taste for wit and humour. Young people are, in the first place, proud to show that they understand them; and they are gratified by the perception of a new intellectual pleasure. At this period of their education, great attention must be paid to them, lest their admiration for wit and frolic should diminish their reverence and their love for sober truth. In many engaging characters in society, and in many entertaining books, deceit and dishonesty are associated with superior abilities, with ease and gayety of manners, and with a certain air of frank carelessness, which can scarcely fail to please. Gil Blas,* Tom Jones, Lovelace, Count Fathom, are all of this class of characters. They should not be introduced to our pupils till their habits of integrity are thoroughly formed; and till they are sufficiently skilful in analyzing their own feelings, to distinguish whence their approbation and pleasure in reading of these characters arise. In books, we do not actually suffer by the tricks of rogues, or by the lies they tell. Hence their truth is to us a quality of no value; but their wit, humour, and the ingenuity of their contrivances, are of great value to us, because they afford us entertainment. The most honest man in the universe may not have had half so many adventures as the greatest rogue in a romance; the history upon oath of all the honest man's bargains and sales, lawsuits and losses; nay, even a complete view of his leger and daybook, together with the regular balancings of his accounts, would probably not afford quite so much entertainment, even to a reader of the most unblemished integrity and phlegmatic temper, as the adventures of Gil Blas, and Jonathan Wild, adorned with all the wit of Le Sage, and humour of Fielding. When Gil Blas lays open his whole heart to us, and tells us all his sins, unwhipped of justice, we give him credit for making us his confidant, and we forget that this sincerity, and these liberal confessions, are not characteristic of the hero's disposition, but essential only to the novel. The novel-writer could not tell us all he had to say without this dying confession, and inconsistent openness, from his accomplished villain. The reader is ready enough to forgive, having never been duped. When young people can make all these reflections

* See Mrs. Macauley's Letters on Education.

for themselves, they may read Gil Blas with as much safety as the Life of Franklin, or any other the most moral performance. "Tout est sain aux sains,"* as Madame de Sevigné very judiciously observes, in one of her letters upon the choice of books for her granddaughter. We refer for more detailed observations upon this subject to the chapter upon Books. But we cannot help here reiterating our advice to preceptors, not to force the detestable characters, which are sometimes held up to admiration in ancient and modern history, upon the common sense, or, if they please, the moral feelings of their pupils. The bad actions of *great* characters should not be palliated by eloquence, and fraud and villany should never be explained away by the hero's or warrior's code; a code which confounds all just ideas of right and wrong. Boys, in reading the classics, must read of a variety of crimes; but that is no reason that they should approve of them, or that their tutors should undertake to vindicate the cause of falsehood and treachery. A gentleman who has taught his sons Latin, has uniformly pursued the practice of abandoning to the just and prompt indignation of his young pupils all the ancient heroes who are deficient in moral honesty: his sons, in reading Cornelius Nepos, could not absolutely comprehend, that the treachery of Themistocles or of Alcibiades could be applauded by a wise and polished nation. Xenophon has made an eloquent attempt to explain the nature of military good faith. Cambyses tells his son, that, in taking advantage of an enemy, he must be "crafty, deceitful, a dissembler, a thief, and a robber." Oh Jupiter! exclaims the young Cyrus, what a man, my father, you say I must be! And he very sensibly asks his father, why, if it be necessary in some cases to insnare and deceive men, he had not in his childhood been taught by his preceptors the art of doing harm to his fellow-creatures, as well as of doing them good. "And why," says Cyrus, "have I always been punished whenever I have been discovered in practising deceit?" The answers of Cambyses are by no means satisfactory upon this subject; nor do we think that the conversation between the old general and Mr. Williams,† could

* Every thing is healthful to the healthy.

† See Mr. Williams's Lectures on Education, where Xenophon is quoted, page 16, &c. vol. ii.—also, page 31.

have made the matter perfectly intelligible to the young gentleman, whose scrupulous integrity made him object to the military profession.

It is certain, that many persons of strict honour and honesty in some points, on others are utterly inconsistent in their principles. Thus it is said, that private integrity and public corruption frequently meet in the same character: thus some gentlemen are jockeys, and they have a convenient latitude of conscience as jockeys, while they would not for the universe cheat a man of a guinea in any way but in the sale of a horse: others in gambling, others in love, others in war, think all stratagems fair. We endeavour to think that these are all honourable men; but we hope that we are not obliged to lay down rules for the formation of such moral prodigies, in a system of practical education.

We are aware, that with children* who are educated at public schools, truth and integrity cannot be taught precisely in the same manner as in private families; because ushers and schoolmasters cannot pay the same hourly attention to each of their pupils, nor have they the command of all the necessary circumstances. There are, however, some advantages attending the early commerce which numbers of children at public seminaries have with each other; they find that no society can subsist without truth; they feel the utility of this virtue, and however they may deal with their masters, they learn to speak truth towards each other. This partial species of honesty, or rather of honour, is not the very best of its kind, but it may easily be improved into a more rational principle of action. It is illiberal to assert, that any virtue is to be taught only by one process of education: many different methods of education may produce the same effects. Men of integrity and honour have been formed both by private and public education; neither system should be exclusively supported by those who really wish well to the improvement of mankind. All the errors of each system should be impartially pointed out, and such remedies as may most easily be adopted with any hope of success, should be proposed. We think, that if parents paid sufficient attention to the habits of their children, from the age of three to seven years old, they would be properly prepared for public

* Vide Williams.

education; they would not then bring with them to public schools all that they have learned of vice and falsehood in the company of servants.* We have purposely repeated all this, in hopes of impressing it strongly. May we suggest to the masters of these important seminaries, that Greek and Latin, and all the elegance of classical literature, are matters but of secondary consequence, compared with those habits of truth, which are essential to the character and happiness of their pupils? By rewarding the moral virtues more highly than the mere display of talents, a generous emulation to excel in these virtues may with certainty be excited.

Many preceptors and parents will readily agree, that Bacon, in his "general distribution of human knowledge," was perfectly right not to omit that branch of philosophy which his lordship terms "*The doctrine of rising in the world.*" To this art, integrity at length becomes necessary; for talents, whether for business or for oratory, are now become so cheap, that they cannot alone ensure pre-eminence to their possessors. The public opinion, which in England bestows celebrity, and necessarily leads to honour, is intimately connected with the public confidence. Public confidence is not the same thing as popularity; the one may be won, the other must be earned. There is among all parties, who at present aim at political power, an unsatisfied demand for honest men. Those who speculate in this line for their children, will do wisely to keep this fact in their remembrance during their whole education.

We have delayed, from a full consciousness of the difficulty of the undertaking, to speak of the method of curing either the habits or the propensity to falsehood. Physicians, for mental as well as bodily diseases, can give long histories of maladies; but are surprisingly concise when they come to treat of the method of cure. With patients of different ages and different temperaments, to speak with due medical solemnity, we should advise different remedies. With young children, we should be most anxious to break the habits; with children at a more advanced period of their education, we should be most careful to rectify the principles. Children, before they reason, act merely from habit; and

* See Servants, and "Public and Private Education."

without having acquired command over themselves, they have no power to break their own habits; but when young people reflect and deliberate, their principles are of much more importance than their habits, because their principles, in fact, in most cases, govern their habits. It is in consequence of their deliberations and reflections that they act; and, before we can change their way of acting, we must change their way of thinking.

To break *habits* of falsehood in young children, let us begin by removing the temptation, whatever it may be. For instance, if the child have the habit of denying that he has seen, heard, or done things which he has seen, heard, and done, we must not, upon any account, ever question him about any of these particulars; but we should forbear to give him any pleasure which he might hope to obtain by our faith in his assertions. Without entering into any explanations, we should absolutely* disregard what he says, and with looks of cool contempt, turn away without listening to his falsities. A total change of occupations, new objects, especially such as excite and employ the senses, will be found highly advantageous. Sudden pleasure, from strong expressions of affection, or eloquent praise, whenever the child speaks truth, will operate powerfully in breaking his habits of equivocation. We do not advise parents to try sudden pain with children at this early age, neither do we advise bodily correction, or lasting *penitences*, meant to excite shame, because these depress and enfeeble the mind, and a propensity to falsehood ultimately arises from weakness and timidity. Strengthen the body and mind by all means; try to give the pupils command over themselves, upon occasions where they have no opportunities of deceiving: the same command of mind and courage, proceeding from the consciousness of strength and fortitude, may, when once acquired, be exerted in any manner we direct. A boy who tells a falsehood to avoid some trifling pain or to procure some trifling gratification, would perhaps dare to speak the truth, if he were certain that he could bear the pain or do without the gratification. Without talking to him about truth or falsehood, we should begin by exercising him in the art of bearing and forbearing. The slightest

* Rousseau and Williams.

trials are best for beginners, such as their fortitude can bear; for success is necessary to increase their courage.

Madame de Genlis, in her Adela and Theodore, gives Theodore, when he is about seven years old, a box of sugarplums to take care of, to teach him to command his passions. Theodore produces the untouched treasure to his mother, from time to time, with great self-complacency. We think this a good practical lesson. Some years ago the experiment was tried, with complete success, upon a little boy between five and six years old. This boy kept raisins and almonds in a little box in his pocket, day after day, without ever thinking of touching them. His only difficulty was, to remember at the appointed time, at the week's end, to produce them. The raisins were regularly counted from time to time, and were, when found to be right, sometimes given to the child, but not always. When, for several weeks, the boy had faithfully executed his trust, the time was extended for which he was to keep the raisins, and everybody in the family expressed that they were now certain, before they counted the raisins, that they should find the number exact. This confidence, which was not pretended confidence, pleased the child, but the rest he considered as a matter of course. We think such little trials as these might be made with children of five or six years old, to give them habits of exactness. The boy we have just mentioned has grown up with a more unblemished reputation for truth than any child with whom we were ever acquainted. This is the same boy who broke the looking-glass.

When a patient, far advanced in his childhood, is yet to be cured of a propensity to deceive, the business becomes formidable. It is dangerous to set our vigilance in direct opposition to his cunning, and it is yet more dangerous to trust and give him opportunities of fresh deceit. If the pupil's temper is timid, fear has probably been his chief inducement to dissimulation. If his temper is sanguine, hope and success, and perhaps the pleasure of inventing schemes, or of outwitting his superiors, have been his motives. In one case we should prove to the patient that he has nothing to fear from speaking the truth to us; in the other case we should demonstrate to him that he has nothing to hope from telling us falsehoods. Those who are pleased with the ingenuity of cunning, should have op-

portunities of showing their ingenuity in honourable employments; and the highest praise should be given to their successful abilities, whenever they are thus exerted. They will compare their feelings when they are the objects of esteem and of contempt, and they will be led permanently to pursue what most tends to their happiness. We should never deprive them of the hope of establishing a character for integrity; on the contrary, we should explain distinctly to them, that this is absolutely in their own power. Examples from real life will strike the mind of a young person just entering into the world, much more than any fictitious characters or moral stories; and strong indignation, expressed incidentally, will have more effect than any lectures prepared for the purpose. We do not mean that any artifice should be used to make our lessons impressive; but there is no artifice in seizing opportunities, which must occur in real life, to exemplify the advantage of a good character. The opinions which young people hear expressed of actions in which they have no share, and of characters with whom they are not connected, make a great impression upon them. The horror which is shown to falsehood, the shame which overwhelms the culprit, they have then leisure to contemplate; they see the effects of the storm at a distance; they dread to be exposed to its violence, and they will prepare for their own security. When any such strong impression has been made upon the mind, we should seize that moment to connect new principles with new habits of action: we should try the pupil in some situation in which he has never been tried before, and where he consequently may feel hope of obtaining reputation, if he deserve it, by integrity. All reproaches upon his former conduct should now be forborne, and he should be allowed to feel, in full security, the pleasures and the honours of his new character.

We cannot better conclude a chapter upon Truth, than by honestly referring the reader to a charming piece of eloquence, with which Mr. Godwin concludes his essay upon Deception and Frankness.* We are sensible how much we shall lose by the comparison: we had written this chapter before we saw his essay.

* See The Enquirer, p. 101.

CHAPTER IX.

ON REWARDS AND PUNISHMENTS.

To avoid, in education, all unnecessary severity and all dangerous indulgence, we must form just ideas of the nature and use of rewards and punishments. Let us begin with considering the nature of punishment, since it is best to get the most disagreeable part of our business done the first.

Several benevolent and enlightened authors* have endeavoured to explain the use of penal laws, and to correct the ideas which formerly prevailed concerning public justice. Punishment is no longer considered, except by the ignorant and sanguinary, as vengeance from the injured, or expiation from the guilty. We now distinctly understand, that the greatest possible happiness of the whole society must be the ultimate object of all just legislation; that the partial evil of punishment is consequently to be tolerated by the wise and humane legislator, only so far as it is proved to be necessary for the general good. When a crime has been committed, it cannot be undone by all the art, or all the power of man; by vengeance the most sanguinary, or remorse the most painful.

The past is irrevocable; all that remains is to provide for the future. It would be absurd, after an offence has already been committed, to increase the sum of misery in the world by inflicting pain upon the offender, unless that pain were afterward to be productive of happiness to society, either by preventing the criminal from repeating his offence, or by deterring others from similar enormities. With this double view of restraining individuals, by the recollection of past sufferings, from future crimes, and of teaching others, by public examples, to expect and to fear certain evils, as the necessary consequences of certain actions hurtful to society, all wise laws are framed, and all just punishments are inflicted. It is only by the conviction that

* Beccaria, Voltaire, Blackstone, &c.

certain punishments are essential to the general security and happiness, that a person of humanity can, or ought to fortify his mind against the natural feelings of compassion. These feelings are the most painful, and the most difficult to resist, when, as it sometimes unavoidably happens, public justice requires the total sacrifice of the happiness, liberty, or perhaps the life, of a fellow-creature, whose ignorance precluded him from virtue, and whose neglected or depraved education prepared him, by inevitable degrees, for vice and all its miseries. How exquisitely painful must be the feelings of a humane judge, in pronouncing sentence upon such a devoted being! But the law permits of no refined metaphysical disquisitions. It would be vain to plead the necessitarian's doctrine of an unavoidable connexion between the past and the future, in all human actions; the same necessity compels the punishment that compels the crime; nor could, nor ought, the most eloquent advocate, in a court of justice, to obtain a criminal's acquittal by entering into a minute history of the errors of his education.

It is the business of education to prevent crimes, and to prevent all those habitual propensities which necessarily lead to their commission. The legislator can consider only the large interests of society; the preceptor's view is fixed upon the individual interests of his pupil. Fortunately, both must ultimately agree. To secure for his pupil the greatest possible quantity of happiness, taking in the whole of life, must be the wish of the preceptor; this includes every thing. We immediately perceive the connexion between that happiness, and obedience to all the laws on which the prosperity of society depends. We yet further perceive, that the probability of our pupil's yielding not only an implicit, but an habitual, rational, voluntary, happy obedience, to such laws, must arise from the connexion which *he* believes and feels to exist between his social duties and his social happiness. How to induce this important belief is the question.

It is obvious, that we cannot explain to the comprehension of a child of three or four years old, all the truths of morality; nor can we demonstrate to him the justice of punishments, by showing him that we give present pain to ensure future advantage. But, though we cannot demonstrate to the child that we are just, we

may satisfy ourselves upon this subject, and we may conduct ourselves, during his nonage of understanding, with the scrupulous integrity of a guardian. Before we can govern by reason, we can, by associating pain or pleasure with certain actions, give habits; and these habits will be either beneficial or hurtful to the pupil: we must, if they be hurtful habits, conquer them by fresh punishments; and thus we make the helpless child suffer for our negligence and mistakes. Formerly in Scotland there existed a law, which obliged every farrier who, through ignorance or drunkenness, pricked a horse's foot in shoeing him, to deposite the price of the horse until he was sound, to furnish the owner with another, and, in case the horse could not be cured, the farrier was doomed to indemnify the injured owner. At the same rate of punishment, what indemnification should be demanded from a careless or ignorant preceptor?

When a young child puts his finger too near the fire, he burns himself; the pain immediately follows the action; they are associated together in the child's memory; if he repeat the experiment often, and constantly with the same result, the association will be so strongly formed, that the child will ever afterward expect these two things to happen together: whenever he puts his finger into fire, he will expect to feel pain; he will learn yet further, as these things regularly follow one another, to think one the cause, and the other the effect. He may not have words to express these ideas; nor can we explain how the belief that events which have happened together will again happen together, is by experience induced in the mind. This is a fact, which no metaphysicians pretend to dispute; but it has not yet, that we know of, been accounted for by any. It would be rash to assert, that it will not in future be explained; but at present we are totally in the dark upon the subject. It is sufficient for our purpose to observe, that this association of facts, or of ideas, affects the actions of all rational beings, and of many animals which are called irrational. Would you teach a dog or a horse to obey you; do you not associate pleasure or pain with the things you wish that it should practise or avoid? The impatient and ignorant give infinitely more pain than is necessary to the animals they educate. If the pain which we would associate with any action, do not *immediately* follow it, the child does not under-

stand us; if several events happen nearly at the same time, it is impossible that a child can at first distinguish which are causes and which are effects. Suppose that a mother would teach her little son, that he must not put his dirty shoes upon her clean sofa: if she frowns upon him, or speaks to him in an angry tone, at the instant that he sets his foot and shoe upon the sofa, he desists; but he has only learned, that putting a foot upon the sofa, and his mother's frown, follow each other; his mother's frown, from former associations, gives him perhaps some pain, or the expectation of some pain, and consequently he avoids repeating the action which immediately preceded the frown. If, a short time afterward, the little boy, forgetting the frown, accidentally gets upon the sofa *without his shoes*, no evil follows; but it is not probable that he can, by this single experiment, discover that his shoes have made all the difference in the two cases. Children are frequently so much puzzled by their confused experience of impunity and punishment, that they are quite at a loss how to conduct themselves. Whenever our punishments are not made intelligible, they are cruel; they give pain, without producing any future advantage. To make punishment intelligible to children, it must be not only *immediately*, but *repeatedly* and *uniformly*, associated with the actions which we wish them to avoid.

When children begin to reason, punishment affects them in a different manner from what it did while they were governed, like irrational animals, merely by the direct associations of pleasure and pain. They distinguish, in many instances, between coincidence and causation; they discover, that the will of others is the immediate cause, frequently, of the pain they suffer; they learn by experience that the *will* is not an unchangeable cause, that it is influenced by circumstances, by passions, by persuasion, by caprice. It must be, however, by slow degrees, that they acquire any ideas of justice. They cannot know our views relative to their future happiness; their first ideas of the justice of the punishments we inflict, cannot, therefore, be accurate. They regulate these first judgments by the simple idea, that our punishments ought to be exactly the same always in the same circumstances; when they understand words, they learn to expect that our words and actions should precisely agree; that we should keep

our promises, and *fulfil* our threats. They next learn, that as they are punished for voluntary faults, they cannot justly be punished until it has been distinctly explained to them what is *wrong* or *forbidden*, and what is *right* or *permitted*. The words *right* or *wrong*, and *permitted* or *forbidden*, are synonymous at first in the apprehensions of children; and obedience and disobedience are their only ideas of virtue and vice. Whatever we command to be done, or, rather, whatever we associate with pleasure, they imagine to be right; whatever we prohibit, provided we have uniformly associated it with pain, they believe to be wrong. This implicit submission to our authority, and these confined ideas of right and wrong, are convenient, or apparently convenient, to indolent or tyrannical governors; and they sometimes endeavour to prolong the reign of ignorance, with the hope of establishing in the mind an opinion of their own infallibility. But this is a dangerous, as well as an unjust system. By comparison with the conduct and opinions of others, children learn to judge of their parents and preceptors; by reading and by conversation, they acquire more enlarged notions of right and wrong; and their obedience, unless it then arise from the conviction of their understandings, depends but on a very precarious foundation. The mere association of pleasure and pain, in the form of reward and punishment, with any given action, will not govern them; they will now examine whether there is any moral or physical *necessary* connexion between the action and punishment; nor will they believe the punishment they suffer to be a consequence of the action they have committed, but rather a consequence of their being obliged to submit to the will of those who are stronger or more powerful than they are themselves. Unjust punishments do not effect their intended purpose, because the pain is not associated with the action which we would prohibit; but, on the contrary, it is associated with the idea of our tyranny; it consequently excites the sentiment of hatred towards us, instead of aversion to the forbidden action. When once, by reasoning, children acquire even a vague idea that those who educate them are unjust, it is in vain either to punish or reward them; if they submit, or if they rebel, their education is equally spoiled; in the one case they become cowardly, in the other headstrong. To avoid these evils, there is but

one method; we must early secure reason for our friend, else she will become our unconquerable enemy. As soon as children are able, in any instance, to understand the meaning and nature of punishment, it should, in that instance, be explained to them. Just punishment is pain, inflicted with the reasonable hope of preventing greater pain in future. In a family where there are several children educated together, or in public schools, punishments may be inflicted with justice for the sake of example, but still the reformation and future good of the sufferer is always a principal object; and of this he should be made sensible. If our practice upon all occasions correspond with our theory, and if children really perceive that we do not punish them to gratify our own spleen or passion, we shall not become, even when we give them pain, objects of their hatred. The pain will not be associated with us, but, as it ought to be, with the fault which was the real cause of it. As much as possible, we should let children feel the natural consequences of their own conduct. The natural consequence of speaking truth is the being believed; the natural consequence of falsehood is the loss of trust and confidence; the natural consequence of all the useful virtues is esteem; of all the amiable virtues, love; of each of the prudential virtues, some peculiar advantage to their possessor. But plumpudding is not the appropriate reward of truth, nor is the loss of it the natural or necessary consequence of falsehood. Prudence is not to be rewarded with the affection due to humanity, nor is humanity to be recompensed with the esteem claimed by prudence. Let each good and bad quality have its proper share of praise and blame, and let the consequences of each follow as constantly as possible. That young people may form a steady judgment of the danger of any vice, they must uniformly perceive that certain painful consequences result from its practice. It is in vain that we inflict punishments, unless all the precepts and all the examples which they see confirm them in the same belief.

In the unfortunate son of Peter the Great, we have a striking instance of the effects of a disagreement between precept and example,* which, in a less elevated situation, might have escaped our notice. It seems as

* See Cox's Travels, vol. ii. p. 139.

if the different parts and stages of his education had been purposely contrived to counteract each other. Till he was eleven years old, he was committed to the care of women and of ignorant bigoted priests, who were continually inveighing against his father for the abolition of certain barbarous customs. Then came Baron Huysen for his governor, a sensible man, who had just begun to make something of his pupil, when Prince Menzikof insisted upon having the sole management of the unfortunate Alexey. Prince Menzikof abandoned him to the company of the lowest wretches, who encouraged him in continual ebriety, and in a taste for every thing mean and profligate. At length came Euphrosyne, his Finlandish mistress, who, upon his trial for rebellion, deposed to every angry expression which, in his most unguarded moments, the wretched son had uttered against the tyrannical father. Amid such scenes of contradictory experience, can we be surprised that Alexey Petrovitch became feeble, ignorant, and profligate; that he rebelled against the father whom he had early been taught to fear and hate; that he listened to the pernicious counsels of the companions who had, by pretended sympathy and flattery, obtained that place in his confidence which no parental kindness had ever secured? Those historians who are zealous for the glory of Peter the Great, have eagerly refuted, as a most atrocious calumny, the report of his having had any part in the mysterious death of his son. But how will they apologize for the czar's neglect of that son's education, from which all the misfortunes of his life arose?

But all this is past for ever; the only advantage we can gain from recalling these circumstances, is a confirmation of this important principle in education; that, when precept and example counteract each other, there is no hope of success. Nor can the utmost severity effect any useful purpose, while the daily experience of the pupil contradicts his preceptor's lessons. In fact, severity is seldom necessary in a well-conducted education. The smallest possible degree of pain, which can, in any case, produce the required effect, is indisputably the just measure of the punishment which ought to be inflicted in any given case. This simple axiom will lead us to a number of truths, which immediately depend upon or result from it. We must attend to every circumstance which can diminish the quantity

of pain without lessening the efficacy of punishment. Now it has been found from experience, that there are several circumstances which operate uniformly to this purpose. We formerly observed, that the effect of punishment upon the minds of children, before they reason, depends much upon its *immediately* succeeding the fault, and also upon its being certainly repeated whenever the same fault is committed. After children acquire the power of reasoning, from a variety of new motives, these laws with respect to punishment derive additional force. A trifling degree of pain will answer the purpose, if it be made inevitable; while the fear of an enormous proportion of uncertain punishment will not be found sufficient to govern the imagination. The contemplation of a distant punishment, however severe, does not affect the imagination with much terror, because there is still a secret hope of escape in the mind. Hence it is found from experience, that the most sanguinary penal laws have always been ineffectual to restrain from crimes.* Even if detection be inevitable, and consequent punishment equally inevitable, if punishment be not inflicted as soon as the criminal is convicted, it has been found that it has not, either as a preventive or a public example, the same power upon the human mind. Not only should the punishment be immediate after conviction, but detection should follow the offence as speedily as possible. Without entering at large into the intricate arguments concerning identity and consciousness, we may observe, that the consciousness of having committed the offence for which he suffers, ought, at the time of suffering, to be strong in the offender's mind. Though proofs of his identity may have been legally established in a court of justice; and though, as far as it relates to public justice, it matters not whether the offence for which he is punished was committed yesterday or a year ago; yet, as to the effect which the punishment produces on the culprit's own mind, there must be a material difference.

"I desire you to judge of me, not by what I was, but by what I am," said a philosopher, when he was reproached for some of his past transgressions. If the interval between an offence and its punishment be long, it is possible that, during this interval, a complete change

* See Beccaria, Blackstone, Colquhoun.

may be made in the views and habits of the offender; such a change as shall absolutely preclude all probability of his repeating his offence. His punishment must then be purely for the sake of example to others. He suffers pain at the time, perhaps, when he is in the best social dispositions possible; and thus we punish the present good man for the faults of the former offender. We readily excuse the violence which a man in a passion may have committed, when, upon his return to his sober senses, he expresses contrition and surprise at his own excesses; he assures us, and we believe him, that he is now a perfectly different person. If we do not feel any material ill consequences from his late anger, we are willing, and even desirous, that the passionate man should not, in his sober state, be punished for his madness; all that we can desire is, to have some security against his falling into any fresh fit of anger. Could his habits of temper be instantly changed, and could we have a moral certainty that his phrensy would never more do us any injury, would it not be malevolent and unjust to punish him for his old insanity? If we think and act upon these principles with respect to men, how much more indulgent should we be to children! Indulgence is perhaps an improper word—but in other words, how careful should we be never to chain children to their dead faults!* Children, during their education, must be in a continual state of progression; they are not the same to-day that they were yesterday; they have little reflection; their consciousness of the present occupies them; and it would be extremely difficult, from day to day, or from hour to hour, to identify their minds. Far from wishing that they should distinctly remember all their past thoughts, and that they should value themselves upon their continuing the same, we must frequently desire that they should forget their former errors, and absolutely change their manner of thinking. They should feel no interest in adhering to former bad habits or false opinions; therefore, their pride should not be roused to defend these by our making them a part of their standing character. The character of children is *to be* formed—we should never speak of it as positively fixed. Man has been defined to be a bundle of habits; till the bundle is made up, we may

* Mezentius.—*Virgil.*

continually increase or diminish it. Children who are zealous in defence of their own perfections, are of all others most likely to become stationary in their intellectual progress, and disingenuous in their temper. It would be in vain to repeat to them this sensible and elegant observation,—"To confess that you have been in the wrong, is only saying, in other words, that you are wiser to-day than you were yesterday." This remark will rather pique than comfort the pride of those who are anxious to prove that they have been equally wise and immaculate in every day of their existence.

It may be said that children cannot too early be made sensible of the value of reputation; and they must be taught to connect the ideas of their past and present *selves*, otherwise they cannot perceive, for instance, why confidence should be placed in them in proportion to their past integrity; or why falsehood should lead to distrust. The force of this argument must be admitted; yet still we must consider the age and strength of mind in children in applying it to practice. Truth is not instinctive in the mind, and the ideas of integrity and of the advantages of reputation must be very cautiously introduced, lest, by giving children too perfect a theory of morality, before they have sufficient strength of mind to adhere to it in practice, we may make them hypocrites, or else give them a fatal distrust of themselves, founded upon too early an experience of their own weakness, and too great sensibility to shame.

Shame, when it once becomes familiar to the mind, loses its effect; it should not, therefore, be used as a common punishment for slight faults. Nor should we trust very early in education to the delicate, secret influence of conscience; but we should take every precaution to prevent the necessity of having recourse to the punishment of disgrace; and we must, if we mean to preserve the power of conscience, take care that it be never disregarded with impunity. We must avoid opposing it to strong temptation; nor should we ever try the integrity of children, except in situations where we can be perfectly certain of the result of the experiment. We must neither run the risk of injuring them by unjust suspicions nor unmerited confidence. By prudent arrangements, and by unremitted daily attention, we should absolutely prevent the possibility of deceit. By giving a few commands or prohibitions, we may

avoid the danger of either secret or open disobedience. By diminishing temptations to do wrong, we act more humanely than by multiplying restraints and punishments.

It has been found that no restraints or punishments have proved adequate to ensure obedience to laws, whenever strong temptations, and many probabilities of evasion, combine in opposition to conscience or fear. The terrors of the law have been for years ineffectually directed against a race of beings called smugglers; yet smuggling is still an extensive, lucrative, and not universally discreditable profession. Let any person look into the history of the excise laws in England,* and he will be astonished at the accumulation of penal statutes, which the active, but ineffectual ingenuity of prohibitory legislators has devised in the course of about thirty years. Open war was declared against all illegal distillers; yet the temptation to illegal distilling continually increased, in proportion to the heavy duties laid upon the fair trader. It came at length to a trial of skill between revenue officers and distillers, which could cheat, or which could detect, the fastest. The distiller had the strongest interest in the business, and he usually came off victorious. *Coursing officers* and *watching officers* (once ten *watching officers* were set upon one distiller), and *surveyors* and *supervisors*, multiplied without end: the land in their fiscal maps was portioned out into *divisions* and *districts*, and each gauger had the charge of all the distillers in his division: the watching officer went first, and the coursing officer went after him, and after him the supervisor; and they had *table-books*, and *gauging-rods*, and *dockets*, and *permits;* permits for sellers, and permits for buyers, and permits for foreign spirits, printed in red ink, and permits for British spirits, in black ink; and they went about night and day with their hydrometers, to ascertain the strength of spirits; and with their gauging-rods, to measure *wash*. But the pertinacious distiller was still flourishing; permits were forged; concealed pipes were fabricated; and the proportion between the *wash* and *spirits* was seldom legal. The commissioners complained, and the legislators went to work again. Under a penalty of 100*l*., distillers

* See An Inquiry into the Principles of Taxation, p. 37, published in 1790.

were ordered to paint the words *distiller, dealer in spirits*, over their doors; and it was further enacted that all the distillers should furnish, at their own expense, any kind of locks and fastenings which the revenue officers should require for locking up the doors of their own furnaces, the heads of their own stills, pumps, pipes, &c. First, suspicions fell upon the public distiller for exportation; then his utensils were locked up; afterward the private distiller was suspected, and he was locked up; then they set him and his furnaces at liberty, and went back in a passion to the public distiller. The legislature condescended to interfere, and with a new lock and key, precisely described in an act of Parliament, it was hoped all would be made secure. Any person, being a distiller, who should lock up his furnace or pipes with a key constructed differently from that which the act described, or any person making such illegal key for said distiller, was subject to the forfeiture of 100*l*. The padlock was never fixed upon the mind, and even the lock and key, prescribed by act of Parliament, were found inefficacious. Any common blacksmith, with a picklock in his possession, laughed at the combined skill of the two houses of Parliament.

This digression from the rewards and punishments of children to the distillery laws, may, it is hoped, be pardoned, if the useful moral can be drawn from it, that, where there are great temptations to fraud, and continual opportunities of evasion, no laws, however ingenious, no punishments, however exorbitant, can avail. The history of coiners, venders, and utterers of his majesty's coin, as lately detailed to us by respectable authority,* may afford further illustration of this principle.

There is no imminent danger of children becoming either coiners or fraudulent distillers; but an ingenious preceptor will not be much puzzled in applying the remarks that have been made to the subject of education. For the anticlimax, in descending from the legislation of men to the government of children, no apology is attempted.

The fewer the laws we make for children, the better. Whatever they may be, they should be distinctly expressed; the letter and spirit should both agree, and the

* Colquhoun. On the Police of the Metropolis.

words should bear but one signification, clear to all the parties concerned. They should never be subject to the *ex post facto* interpretation of an angry preceptor or a cunning pupil; no loose general terms should permit tyranny or encourage quibbling. There is said* to be a Chinese law, which decrees that whoever does not show *proper respect* to the sovereign, is to be punished with death. What is meant by the words *proper respect*, is not defined. Two persons made a mistake in some account of a significant affair, in one of their court gazettes. It was declared, that *to lie* in a court gazette is to be wanting in *proper respect* to the court. Both the careless scribes were put to death. One of the princes of the blood inadvertently put some mark upon a memorial which had been signed by the Emperor Bogdo Chan. This was construed to be a want of *proper respect* to Bogdo Chan the emperor, and a horrible persecution hence arose against the scrawling prince and his whole family. May no schoolmasters, ushers, or others, ever (even as far as they are able) imitate Bogdo Chan, and may they always define to their subjects what they mean by *proper respect!*

There is a sort of mistaken mercy sometimes shown to children, which is, in reality, the greatest cruelty. People who are too angry to refrain from threats, are often too indolent, or too compassionate, to put their threats in execution. Between their words and actions there is hence a manifest contradiction; their pupils learn, from experience, either totally to disregard these threats, or else to calculate, from the various degrees of anger which appear in the threatener's countenance, what real probability there is of his being as good or as bad as his word. Far from perceiving that punishment, in this case, is *pain given with the reasonable hope of making him wiser or happier*, the pupil is convinced, that his master punishes him only to gratify the passion of anger, to which he is unfortunately subject. Even supposing that threateners are exact in fulfilling their threats, and that they are not passionate, but simply wish to avoid giving pain, they endeavour to excite the fears of their pupils as the means of governing them.

* See the grand instructions to the commissioners appointed to frame a new code of laws for the Russian empire, p. 183, said to have been drawn up by the late Lord Mansfield.

with the least possible pain. But with fear they excite all the passions and habits which are connected with that mean principle of action, and they extinguish that vigorous spirit, that independent energy of soul, which is essential to all the active and manly virtues. Young people who find that their daily pleasures depend not so much upon their own exertions as upon the humour and caprice of others, become absolute courtiers; they practise all the arts of persuasion, and all the crouching hypocrisy which can deprecate wrath, or propitiate favour. Their notions of right and wrong cannot be enlarged; their recollection of the rewards and punishments of their childhood is always connected with the ideas of tyranny and slavery; and when they break their own chains, they are impatient to impose similar bonds upon their inferiors.

An argument has been used to prove, that in some cases anger is part of the *justice* of punishment, because "mere *reproof*, without sufficient marks of *displeasure* and *emotion*, affects a child very little, and is soon forgotten."* It cannot be doubted, that the expression of indignation is a just consequence of certain faults; and the general indignation with which these are spoken of before young people, must make a strong and useful impression upon their minds. They reflect upon the actions of others; they see the effects which these produce upon the human mind; they put themselves in the situation alternately of the person who expresses indignation, and of him who suffers shame; they measure the fault and its consequences; and they resolve to conduct themselves so as to avoid that just indignation of which they dread to be the object. These are the general conclusions which children draw when they are *impartial spectators;* but where they are themselves concerned, their feelings and their reasonings are very different. If they have done any thing which they know to be wrong, they expect, and are sensible that they deserve, displeasure and indignation; but if any precise penalty is annexed to the fault, the person who is to inflict it appears to them in the character of a judge, who is bound to repress his own feelings, and coolly to execute justice. If the judge both reproaches and punishes, he

* See Dr. Priestley's Miscellaneous Observations relating to Education, sect. vii. of correction, p. 67.

doubles the punishment. Whenever indignation is expressed, no vulgar trivial penalties should accompany it; the pupil should feel that it is indignation against his fault, and not against himself; and that it is not excited in his preceptor's mind by any petty personal considerations. A child distinguishes between anger and indignation very exactly; the one commands his respect, the other raises his contempt as soon as his fears subside. Dr. Priestley seems to think that "it is not possible to express displeasure with sufficient *force*, especially to a child, when a man is perfectly cool." May we not reply to this, that it is scarcely possible to express displeasure with sufficient *propriety*, especially to a child, when a man is in a passion? The propriety is, in this case, of at least as much consequence as the force of the reprimand. The effect which the preceptor's displeasure will produce, must be in some proportion to the esteem which the pupil feels for him. If he cannot command his irascible passions, his pupil cannot continue to esteem him; and there is an end of all that fear of his disapprobation, which was founded upon esteem, and which can never be founded upon a stronger or a better basis. We should further consider, that the opinions of all the by-standers, especially if they be any of them of the pupil's own age, have great influence upon his mind. It is not to be expected that they should all sympathize equally with the angry preceptor; and we know that whenever the indignation expressed against any fault appears, in the least, to pass the bound of exact justice, the sympathy of the spectators immediately revolts in favour of the culprit; the fault is forgotten or excused, and all join in spontaneous compassion. In public schools, this happens so frequently, that the master's displeasure seldom affects the little community with any sorrow; combined together, they make each other amends for public punishments, by private pity or encouragement. In families which are not well regulated, that is to say, in which the interests of all the individuals do not coalesce, the same evils are to be dreaded. Neither indignation nor *shame* can affect children in such schools or such families; the laws and manners, public precept and private opinion, contradict each other.

In a variety of instances in society, we may observe, that the best laws and the best principles are not suffi-

cient to resist the combination of numbers. Never attempt to affix infamy to a number of people at once, says a philosophic legislator.* This advice showed that he perfectly understood the nature of the passion of shame. Numbers keep one another in countenance; they form a society for themselves; and sometimes by peculiar phrases, and an appropriate language, confound the established opinion of virtue and vice, and enjoy a species of self-complacency independent of public opinion, and often in direct opposition to their former *conscience.* Whenever any set of men want to get rid of the shame annexed to particular actions, they begin by changing the names and epithets which have been generally used to express them, and which they know are associated with the feelings of shame: these feelings are not awakened by the new language, and by degrees they are forgotten, or they are supposed to have been merely prejudices and habits, which *former methods of speaking* taught people to reverence. Thus the most disgraceful combinations of men, who live by violating and evading the laws of society, have all a peculiar phraseology among themselves, by which jocular ideas are associated with the most disreputable actions.

Those who live by depredation on the river Thames, do not call themselves thieves, but *lumpers* and *mudlarks.* Coiners give regular mercantile names to the different branches of their trade, and to the various kinds of false money which they circulate: such as *flats*, or *figs*, or *fig-things.* Unlicensed lottery-wheels are called *little goes;* and the men who are sent about to public houses to entice poor people into illegal lottery-ensurances, are called *Morocco-men:* a set of villains, hired by these fraudulent lottery-keepers, to resist the civil power during the drawing of the lottery, call themselves *bludgeon-men;* and in the language of robbers, a receiver of stolen goods is said to be *stanch*, when it is believed that he will go all lengths rather than betray the secrets of a gang of highwaymen.†

Since words have such power in their turn over ideas, we must, in education, attend to the language of children as a means of judging of the state of their minds; and whenever we find that in their conversation with

* See Code of Russian Laws.
† Colquhoun.

one another they have any slang which turns moral ideas into ridicule, we may be certain that this must have arisen from some defect in their education. The power of shame must then be tried in some new shape, to break this false association of ideas. Shame in a new shape affects the mind with surprising force, in the same manner as danger in a new form alarms the courage of veterans. An extraordinary instance of this may be observed in the management of Gloucester jail: a blue and yellow jacket has been found to have a most powerful effect upon men supposed to be dead to shame. The keeper of the prison told us, that the most unruly offenders could be kept in awe by the dread of a dress which exposed them to the ridicule of their companions, no new term having been yet invented to counteract the terrors of the yellow jacket. To prevent the mind from becoming insensible to shame, it must be very sparingly used; and the hope and possibility of recovering esteem must always be kept alive. Those who are excluded from hope are necessarily excluded from virtue; the loss of reputation, we see, is almost always followed by total depravity. The cruel prejudices which are harboured against particular classes of people, usually tend to make the individuals who are the best disposed among these sects, despair of obtaining esteem; and, consequently, careless about deserving it. There can be nothing inherent in the knavish propensity of Jews; but the prevailing opinion, that avarice, dishonesty, and extortion, are the characteristics of a Jew, has probably induced many of the tribe to justify the antipathy which they could not conquer. Children are frequently confirmed in faults, by the imprudent and cruel custom which some parents have of settling early in life, that such a thing is natural; that such and such dispositions are not to be cured; that cunning, perhaps, is the characteristic of one child, and caprice of another. This general odium oppresses and dispirits: such children think it is in vain to struggle against nature, especially as they do not clearly understand what is meant by nature. They submit to our imputations, without knowing how to refute them. On the contrary, if we treat them with more good sense and benevolence, if we explain to them the nature of the human mind, and if we lay open to them the history of their own, they will assist us in endeavouring to cure their faults,

and they will not be debilitated by indistinct, superstitious fears. At ten or eleven years old, children are capable of understanding some of the general principles of rational morality; and these they can apply to their own conduct in many instances, which, however trivial they may appear, are not beneath our notice.

June 16, 1796. S—— (nine years old) had lost his pencil; his father said to him, "I wish to give you another pencil, but I am afraid I should do you harm if I did; you would not take care of your things if you did not feel some inconvenience when you lose them." The boy's lips moved as if he were saying to himself, "I understand this; it is just." His father guessed that these were the thoughts that were passing in his mind, and asked whether he interpreted rightly the motion of the lips. "Yes," said S——, "that was exactly what I was thinking." "Then," said his father, "I will give you a bit of my own pencil this instant: all I want is to make the necessary impression upon your mind; that is all the use of punishment; you know we do not want to torment you."

As young people grow up, and perceive the consequences of their own actions, and the advantages of credit and character, they become extremely solicitous to preserve the good opinion of those whom they love and esteem. They are now capable of taking the future into their view, as well as the present; and at this period of their education, the hand of authority should never be hastily used; the voice of reason will never fail to make itself heard, especially if reason speak with the tone of affection. During the first years of childhood, it did not seem prudent to make any punishment lasting, because young children quickly forget their faults; and having little experience, cannot feel how their past conduct is likely to affect their future happiness: but as soon as they have more enlarged experience, the nature of their punishments should alter; if we have any reason to esteem or love them less, our contempt and displeasure should not lightly be dissipated. Those who reflect, are more influenced by the idea of the duration than of the intensity of any mental pain. In those calculations which are constantly made before we determine upon action or forbearance, some tempers estimate any evil which is likely to be but of short duration, infinitely below its real importance.

Young men of sanguine and courageous dispositions, hence frequently act imprudently; the consequences of their temerity will, they think, soon be over, and they feel that they are able to support evil for a short time, however great it may be. Anger, they know, is a short-lived passion, and they do not scruple running the hazard of exciting anger in the hearts of those they love the best in the world. The experience of lasting, sober disapprobation, is intolerably irksome to them; any inconvenience which continues for a length of time, wearies them excessively. After they have endured, as the consequence of any actions, this species of punishment, they will long remember their sufferings, and will carefully avoid incurring in future similar penalties. Sudden and transient pain appears to be most effectual with persons of an opposite temperament.

Young people of a torpid, indolent temperament, are much under the dominion of habit; if they happen to have contracted any disagreeable or bad habits, they have seldom sufficient energy to break them. The stimulus of sudden pain is necessary in this case. The pupil may be perfectly convinced that such a habit ought to be broken, and may wish to break it most sincerely; but may yet be incapable of the voluntary exertion requisite to obtain success. It would be dangerous to let the habit, however insignificant, continue victorious; because the child would hence be discouraged from all future attempts to battle with himself. Either we should not attempt the conquest of the habit, or we should persist till we have vanquished. The confidence which this sense of success will give the pupil, will probably, in his own opinion, be thought well worth the price. Neither his reason nor his will was in fault; all he wanted was strength to break the diminutive chains of habit; chains which, it seems, have power to enfeeble their captives, exactly in proportion to the length of time they are worn.

Everybody has probably found, from his own experience, how difficult it is to alter little habits in manners, pronunciation, &c. Children are often teased with frequent admonitions about their habits of sitting, standing, walking, talking, eating, speaking, &c. Parents are early aware of the importance of agreeable, graceful manners; everybody who sees children can judge, or thinks that he can judge, of their manners;

and from anxiety that children should appear to advantage in company, parents solicitously watch all their gestures, and correct all their attitudes according to that image of the "*beau ideal*" which happens to be most fashionable. The most convenient and natural attitudes are not always the most approved. The constraint which children suffer from their obedience, obliges them at length to rest their tortured muscles, and to throw themselves, for relief, into attitudes the very reverse of those which they have practised with so much pain. Hence they acquire opposite habits in their manners, and there is a continual struggle between these. They find it impossible to correct, instantaneously, the awkward tricks which they have acquired, and they learn *ineffectually* to attempt a conquest over themselves; or else, which is most commonly the catastrophe, they learn to hear the exhortations and rebukes of all around them, without being stimulated to any degree of exertion.* The same voices which lose their power on these trifling occasions, lose, at the same time, much of their general influence. More *power* is wasted upon trifling defects in the manners of children, than can be imagined by any who have not particularly attended to this subject. If it be thought indispensably necessary to speak to children eternally about their manners, this irritating and disagreeable office should devolve upon somebody whose influence over the children we are not anxious to preserve undiminished. A little ingenuity in contriving the dress, writing-desks, reading-desks, &c. of children, who are any way defective in their shape, might spare much of the anxiety which is felt by their parents, and much of the bodily and mental pain which they alternately endure themselves. For these patients, would it not be rather more safe to consult the philosophic physician† than the dancing-master, who is not bound to understand either anatomy or metaphysics?

Every preventive which is discovered for any defect, either in manners, temper, or understanding, diminishes the necessity for punishment. Punishments are *the abrupt, brutal resource of ignorance, frequently*,‡ to

* See the judicious Locke's observations upon the subject of *manners*, section 67 of his valuable Treatise on Education.

† See vol. ii. of Zoonomia.

‡ We believe this is Williams's idea.

cure the effects of former negligence. With children who have been reasonably and affectionately educated, scarcely any punishments are requisite. This is not an assertion hazarded without experience; the happy experience of several years, and of several children of different ages and tempers, justifies this assertion. As for corporeal punishments, they may be necessary where boys are to be *drilled* in a given time into scholars; but the language of blows need seldom be used to reasonable creatures. The idea that it is disgraceful to be governed by force, should be kept alive in the minds of children; the dread of shame is a more powerful motive than the fear of bodily pain. To prove the truth of this, we may recollect that few people have ever been known to destroy themselves, in order to escape from bodily pain; but numbers, to avoid shame, have put an end to their existence. It has been a question, whether mankind are most governed by hope or by fear; by rewards or by punishments? This question, like many others which have occasioned tedious debates, turns chiefly upon words. Hope and fear are sometimes used to denote mixed, and sometimes unmixed passions. Those who speak of them as unmixed passions, cannot have accurately examined their own feelings.* The probability of good produces hope; the probability of evil excites fear; and as this probability appears less or greater, more remote or nearer to us, the mind fluctuates between the opposite passions. When the probability increases on either side, so does the corresponding passion. Since these passions seldom exist in absolute separation from one another, it appears that we cannot philosophically speak of either as an independent motive: to the question, therefore, "Which governs mankind the most, hope or fear?" we cannot give an implicit answer.

When we would determine upon the probability of any good or evil, we are insensibly influenced, not only by the view of the circumstances before us, but also by our previous habits; we judge not only by the general laws of human events, but also by our own individual experience. If we have been usually successful, we are inclined to hope; have we been accustomed to misfortunes, we are hence disposed to fear. "Cæsar and his

* Hume's Dissertation on the Passions.

fortune are on board," exclaimed the confident hero to the mariners. Hope excites the mind to exertion; fear represses all activity. As a preventive from vice, you may employ fear; to restrain the excesses of all the furious passions, it is useful and necessary: but would you rouse the energies of virtue, you must inspire and invigorate the soul with hope. Courage, generosity, industry, perseverance, all the magic of talents, all the powers of genius, all the virtues that appear spontaneous in great minds, spring from hope. But how different is the hope of a great and of a little mind; not only are the objects of this hope different, but the passion itself is raised and supported in a different manner. A feeble person, if he presume to hope, hopes as superstitiously as he fears; he keeps his attention sedulously fixed upon all the probabilities in his favour; he will not listen to any argument in opposition to his wishes; he knows he is unreasonable, he persists in continuing so; he does not connect any idea of exertion with hope; his hope usually rests upon the exertions of others, or upon some fortuitous circumstances. A man of a strong mind reasons before he hopes; he takes in, at one quick, comprehensive glance, all that is to be seen, both for and against him; he is, from experience, disposed to depend much upon his own exertions, if they can turn the balance in his favour; he hopes, he acts, he succeeds. Poets, in all ages, have celebrated the charms of hope; without her propitious influence, life, they tell us, would be worse than death; without her smiles, nature would smile in vain; without her promises, treacherous though they often prove, reality would have nothing to give worthy of our acceptance. We are not bound, however, to understand literally, the rhetoric of poets. Hope is to them a beautiful and useful allegorical personage; sometimes leaning upon an anchor; sometimes "waving her golden hair;" always young, smiling, enchanting, furnished with a rich assortment of epithets suited to the ode, the sonnet, the madrigal, with a traditionary number of images and allusions; what more can a poet desire? Men, except when they are poets, do not value hope as the first of terrestrial beings. The action and energies which hope produces, are to many more agreeable than the passion itself; that feverish state of suspense, which prevents settled thought or vigorous exertion, far from being agreeable, is highly painful to a well-

regulated mind; the continual repetition of the same ideas and the same calculations, fatigues the mind, which, in reasoning, has been accustomed to arrive at some certain conclusion, or to advance, at least, a step at every effort. The exercise of the mind in changing the views of its object, which is supposed to be a great part of the pleasure of hope, is soon over to an active imagination, which quickly runs through all the possible changes; or is this exercise, even while it lasts, so delightful to a man who has a variety of intellectual occupations, as it frequently appears to him who knows scarcely any other species of mental activity? The vacillating state of mind peculiar to hope and fear, is by no means favourable to industry; half our time is generally consumed in speculating upon the reward, instead of earning it, whenever the value of that reward is not *precisely ascertainable*. In all occupations where judgment or accurate observation is essential, if the reward of our labour is brought suddenly to excite our hope, there is an immediate interruption of all effectual labour; the thoughts take a new direction; the mind becomes tremulous, and nothing decisive can be done, till the emotions of hope and fear either subside or are vanquished.

M. l'Abbé Chappe, who was sent by the king of France, at the desire of the French Academy, to Siberia, to observe the transit of Venus, gives us a striking picture of the state of his own mind when the moment of this famous observation approached. In the description of his own feelings, this traveller may be admitted as good authority. A few hours before the observation, a black cloud appeared in the sky; the idea of returning to Paris, after such a long and perilous journey, without having seen the transit of Venus; the idea of the disappointment to his king, to his country, to all the philosophers in Europe, threw him into a state of agitation "which must have been felt to be conceived." At length the black cloud vanished; his hopes affected him almost as much as his fears had done; he fixed his telescope, saw the planet; his eye wandered over the immense space a thousand times in a minute; his secretary stood on one side with his pen in his hand; his assistant, with his eye fixed upon the watch, was stationed on the other side. The moment of the total immersion arrived; the agitated philosopher was seized

with a universal shivering, and could scarcely command his thoughts sufficiently to secure the observation.

The uncertainty of reward, and the consequent agitations of hope and fear, operate as unfavourably upon the moral as upon the intellectual character. The favour of princes is an uncertain reward. Courtiers are usually despicable and wretched beings: they live upon hope; but their hope is not connected with exertion. Those who court popularity are not less despicable or less wretched; their reward is uncertain: what is more uncertain than the affection of the multitude? The Proteus character of Wharton, so admirably drawn by Pope, is a striking picture of a man who has laboured through life with the vague *hope* of obtaining universal applause.

Let us suppose a child to be educated by a variety of persons, all differing in their tastes and tempers, and in their notions of right and wrong; all having the power to reward and punish their common pupil. What must this pupil become? A mixture of incongruous characters; superstitious, enthusiastic, indolent, and perhaps profligate: superstitious, because his own contradictory experience would expose him to fear without reason; enthusiastic, because he would, from the same cause, form absurd expectations; indolent, because the *will* of others has been the measure of his happiness, and his own exertions have never procured him any certain reward; profligate, because, probably, from the confused variety of his moral lessons, he has at last concluded that right and wrong are but unmeaning words. Let us change the destiny of this child, by changing his education. Place him under the sole care of a person of an enlarged capacity and a steady mind; who has formed just notions of right and wrong, and who, in the distribution of reward and punishment, of praise and blame, will be prompt, exact, invariable. His pupil will neither be credulous, rash, nor profligate; and he certainly will not be indolent; his habitual and his rational belief will in all circumstances agree with each other; his hope will be the prelude to exertion, and his fear will restrain him only in situations where action is dangerous.

Even among children, we must frequently have observed a prodigious difference in the quantity of hope and fear which is felt by those who have been well or ill-educated. An ill-educated child is in daily, hourly,

alternate agonies of hope and fear; the present never occupies or interests him, but his soul is intent upon some future gratification, which never pays him by its full possession. As soon as he awakes in the morning, he recollects some promised blessing; and, till the happy moment arrives, he is wretched in impatience: at breakfast he is to be blessed with some toy, that he is to have the moment breakfast is finished; and when he finds the toy does not delight him, he is *to be blessed* with a sweet pudding at dinner, or with sitting up half an hour later at night than his usual bedtime. Endeavour to find some occupation that shall amuse him; you will not easily succeed, for he will still anticipate what you are going to say or do. "What will come next?" "What shall we do after this?" are, as Mr. Williams, in his able lectures upon education, observes, the questions incessantly asked by spoiled children. This species of idle, restless curiosity, does not lead to the acquisition of knowledge; it prevents the possibility of instruction; it is not the animation of a healthy mind; it is the debility of an over-stimulated temper. There is a very sensible letter in Mrs. Macauley's book upon education, on the impropriety of filling the imaginations of young people with prospects of future enjoyment: the foolish system of promising great rewards and fine presents, she clearly shows, creates habitual disorders in the minds of children.

The happiness of life depends more upon a succession of small enjoyments than upon great pleasures; and those who become incapable of tasting the moderately agreeable sensations, cannot fill up the intervals of their existence between their great delights. The happiness of children peculiarly depends upon their enjoyment of *little* pleasures: of these they have a continual variety; they have perpetual occupation for their senses, in observing all the objects around them, and all their faculties may be exercised upon suitable subjects. The pleasure of this exercise is in itself sufficient: we need not say to a child, "Look at the wings of this beautiful butterfly, and I will give you a piece of plum-cake; observe how the butterfly curls his proboscis, how he dives into the honeyed flowers, and I will take you in a coach to pay a visit with me, my dear. Remember the pretty story you read this morning, and you shall have a new coat." Without the new coat, or the

visit, or the plumcake, the child would have had sufficient amusement in the story, and the sight of the butterfly's proboscis: the rewards, besides, have no natural connexion with the things themselves; and they create, where they are most liked, a taste for factitious pleasures. Would you encourage benevolence, generosity, or prudence, let each have its appropriate reward of affection, esteem, and confidence;* but do not, by ill-judged bounties, attempt to force these virtues into premature display. The rewards which are given to benevolence and generosity in children, frequently encourage selfishness, and sometimes teach them cunning. Lord Kames tells us a story, which is precisely a case in point. Two boys, the sons of the Earl of Elgin, were permitted by their father to associate with the poor boys in the neighbourhood of their father's house. One day, the earl's sons being called to dinner, a lad who was playing with them said that he would wait until they returned—"There is no dinner for me at home," said the poor boy. "Come with us, then," said the earl's sons. The boy refused, and when they asked him if he had any money to buy a dinner, he answered, "No."—"Papa," said the eldest of the young gentlemen when he got home, "what was the price of the silver buckles you gave me?"—"Five shillings."—"Let me have the money, and I'll give you the buckles." It was done accordingly, says Lord Kames. The earl, inquiring privately, found that the money was given to the lad *who had no dinner*. The buckles were returned, and the boy was highly commended for being kind to his companion. The commendations were just, but the buckles should not have been returned: the boy should have been suffered steadily to abide by his own bargain; he should have been allowed to feel the pleasure, and pay the exact price of his own generosity.

If we attempt to teach children that they can be generous without giving up some of their own pleasures for the sake of other people, we attempt to teach them what is false. If we once make them amends for any sacrifice they have made, we lead them to expect the same remuneration upon a future occasion; and then, in fact, they act with a direct view to their own interest,

* See Locke, and an excellent little essay of Madame de Lambert's.

and govern themselves by the calculations of prudence, instead of following the dictates of benevolence. It is true, that if we speak with accuracy, we must admit that the most benevolent and generous persons act from the hope of receiving pleasure, and their enjoyment is more exquisite than that of the most refined selfishness; in the language of M. de Rochefoucault, we should therefore be forced to acknowledge, that the most benevolent is always the most selfish person. This seeming paradox is answered by observing, that the epithet *selfish* is given to those who prefer pleasures in which other people have no share; we change the meaning of words when we talk of its being selfish to like the pleasures of sympathy or benevolence, because these pleasures cannot be confined solely to the idea of self. When we say that a person pursues his own interest more by being generous than by being covetous, we take into the account the general sum of his agreeable feelings; we do not balance prudentially his loss or gain upon particular occasions. The generous man may himself be convinced, that the sum of his happiness is more increased by the feelings of benevolence, than it could be by the gratification of avarice; but, though his understanding may perceive the demonstration of this moral theorem, though it is the remote principle of his whole conduct, it does not occur to his memory in the form of a prudential aphorism, whenever he is going to do a generous action. It is essential to our ideas of generosity, that no such reasoning should, at that moment, pass in his mind; we know that the feelings of generosity are associated with a number of enthusiastic ideas; we can sympathize with the virtuous insanity of the man who forgets himself while he thinks of others; we do not so readily sympathize with the cold strength of mind of the person who, deliberately preferring *the greatest possible share of happiness*, is benevolent by rule and measure.

Whether we are just or not in refusing our sympathy to the man of reason, and in giving our spontaneous approbation to the man of enthusiasm, we shall not here examine. But the reasonable man, who has been convinced of this propensity in human nature, will take it into his calculations; he will perceive that he loses, in losing the pleasure of sympathy, part of the sum total of his possible happiness; he will consequently wish

that he could add this item of pleasure to the credit side of his account. This, however, he cannot accomplish; because, though he can by reason correct his calculations, it is not in the power, even of the most potent reason, suddenly to break habitual associations; much less is it in the power of cool reason to conjure up warm enthusiasm. Yet, in this case, enthusiasm *is the thing required.*

What the man of reason cannot do for himself after his associations are strongly formed, might have been easily accomplished in his early education. He might have been taught the same general principles, but with different habits. By early associating the pleasures of sympathy, and praise, and affection, with all generous and benevolent actions, his parents might have joined these ideas so forcibly in his mind, that the one set of ideas should never recur without the other. Whenever the words benevolence or generosity were pronounced, the feelings of habitual pleasure would recur; and he would, independently of reason, desire from association to be generous. When enthusiasm is fairly justified by reason, we have nothing to fear from her vehemence.

In rewarding children for the prudential virtues, such as order, cleanliness, economy, temperance, &c., we should endeavour to make the rewards the immediate consequence of the virtues themselves; and at the same time, approbation should be shown in speaking of these useful qualities. A gradation must, however, always be observed in our praises of different virtues; those that are the most useful to society, as truth, justice, and humanity, must stand the highest in the scale; those that are most agreeable, claim the next place. Those good qualities which must wait a considerable time for their reward, such as perseverance, prudence, &c., we must not expect early from young people. Till they have had experience, how can they form any idea about the future? Till they have been punctually rewarded for their industry, or for their prudence, they do not feel the value of prudence and perseverance. Time is necessary to all these lessons, and those who leave time out in their calculations, will always be disappointed in whatever plan of education they may pursue.

Many to whom the subject is familiar, will be fatigued, probably, by the detailed manner in which it has been thought necessary to explain the principles by which

we should guide ourselves in the distribution of rewards and punishments to children. Those who quickly seize and apply general ideas, cannot endure, with patience, the tedious minuteness of didactic illustration. Those who are actually engaged in *practical education*, will not, on the contrary, be satisfied with general precepts; and, however plausible any theory may appear, they are well aware that its utility must depend upon a variety of small circumstances, to which writers of theories often neglect to advert. At the hazard of being thought tedious, those must be minute in explanation who desire to be generally useful. An old French writer,* more remarkable for originality of thought than for the graces of style, was once reproached *by a friend* with the frequent repetitions which were to be found in his works. "Name them to me," said the author. The critic, with obliging precision, mentioned all the ideas which had most frequently recurred in the book. "I am satisfied," replied the honest author; "you remember my ideas; I repeated them so often to prevent you from forgetting them. Without my repetitions, we should never have succeeded."

CHAPTER X.

ON SYMPATHY AND SENSIBILITY.

The artless expressions of sympathy and sensibility in children, are peculiarly pleasing; people who, in their commerce with the world, have been disgusted and deceived by falsehood and affectation, listen with delight to the genuine language of nature. Those who have any interest in the education of children, have yet a higher sense of pleasure in observing symptoms of their sensibility; they anticipate the future virtues which early sensibility seems certainly to promise; the future happiness which these virtues will diffuse. Nor are they unsupported by philosophy in these sanguine hopes. No theory was ever developed with more ingenious elegance, than that which deduces all our moral sentiments

* The Abbé St. Pierre. See his Eloge, by D'Alembert.

from sympathy. The direct influence of sympathy upon all social beings is sufficiently obvious, and we immediately perceive its necessary connexion with compassion, friendship, and benevolence; but the subject becomes more intricate when we are to analyze our sense of propriety and justice; of merit and demerit; of gratitude and resentment; self-complacency or remorse; ambition and shame.*

We allow, without hesitation, that a being destitute of sympathy could never have any of these feelings, and must, consequently, be incapable of all intercourse with society; yet we must at the same time perceive, that a being endowed with the most exquisite sympathy, must, without the assistance and education of reason, be, if not equally incapable of social intercourse, far more dangerous to the happiness of society. A person, governed by sympathy alone, must be influenced by the bad as well as by the good passions of others; he must feel resentment with the angry man; hatred with the malevolent; jealousy with the jealous; and avarice with the miser: the more lively his sympathy with these painful feelings, the greater must be his misery; the more forcibly he is impelled to action by this sympathetic influence, the greater, probably, must be his imprudence and his guilt. Let us even suppose a being capable of sympathy only with the best feelings of his fellow-creatures,—still, without the direction of reason, he would be a nuisance in the world; his pity would stop the hand, and overturn the balance of justice; his love would be as dangerous as his pity; his gratitude would exalt his benefactor at the expense of the whole human race; his sympathy with the rich, the prosperous, the great, and the fortunate, would be so sudden and so violent as to leave him no time for reflection upon the consequences of tyranny, or the miseries occasioned by monopoly. No time for reflection, did we say? We forgot that we were speaking of a being destitute of the reasoning faculty! Such a being, no matter what his virtuous sympathies might be, must act either like a madman or a fool. On sympathy we cannot depend, either for the correctness of a man's moral sentiments, or for the steadiness of his moral conduct. It is very common to talk of the excellence of a person's

* Adam Smith.

heart, of the natural goodness of his disposition; when these expressions distinctly mean any thing, they must refer to natural sympathy, or a superior degree of sensibility. Experience, however, does not teach us that sensibility and virtue have any certain connexion with each other. No one can read the works of Sterne, or of Rousseau, without believing these men to have been endowed with extraordinary sensibility; yet, who would propose their conduct in life as a model for imitation? That quickness of sympathy with present objects of distress which constitutes compassion, is usually thought a virtue,—but it is a virtue frequently found in persons of an abandoned character. Mandeville, in his essay upon charity-schools, puts this in a strong light.

"Should any one of us," says he, "be locked up in a ground room, where, in a yard adjoining to it, there was a thriving, good-humoured child at play, of two or three years old, so near us that through the grates of the window we could almost touch it with our hands; and if, while we took delight in the harmless diversion and imperfect prattle of the innocent babe, a nasty, overgrown sow should come in upon the child, set it a screaming, and frighten it out of its wits,—it is natural to think that this would make us uneasy, and that with crying out, and making all the menacing noise we could, we should endeavour to drive the sow away. But if this should happen to be a half-starved creature, that, mad with hunger, went roaming about in quest of food, and we should behold the ravenous brute, in spite of our cries, and all the threatening gestures we could think of, actually lay hold of the helpless infant, destroy, and devour it;—to see her widely open her destructive jaws, and the poor lamb beat down with greedy haste; to look on the defenceless posture of tender limbs first trampled upon, then torn asunder; to see the filthy snout, digging in the yet living entrails, suck up the smoking blood, and now and then to hear the crackling of the bones, and the cruel animal grunt with savage pleasure over the horrid banquet; to hear and see all this, what torture would it give the soul, beyond expression! * * * Not only a man of humanity, of good morals, and commiseration, but likewise a highwayman, a housebreaker, or a murderer, could feel anxieties on such an occasion."

Among those monsters who are pointed out by the

historian to the just detestation of all mankind, we meet with instances of casual sympathy and sensibility; even their vices frequently prove to us, that they never became utterly indifferent to the opinion and feelings of their fellow-creatures. The dissimulation, jealousy, suspicion, and cruelty of Tiberius, originated, perhaps, more in his anxiety about the opinions which were formed of his character, than in his fears of any conspiracies against his life. The "*judge within*," *the habit of viewing his own conduct in the light in which it was beheld by the impartial spectator*, prompted him to new crimes; and thus his unextinguished sympathy, and his exasperated sensibility, drove him to excesses from which a more torpid temperament might have preserved him.* When, upon his presenting the sons of Germanicus to the senate, Tiberius beheld the tenderness with which these young men were received, he was moved to such an agony of jealousy as instantly to beseech the senate that he might resign the empire. We cannot attribute, either to policy or fear, this strong emotion, because we know that the senate was at this time absolutely at the disposal of Tiberius, and the lives of the sons of Germanicus depended upon his pleasure.

The desire to excel, according to "Smith's Theory of Moral Sentiments," is to be resolved principally into our love of the sympathy of our fellow-creatures. We wish for their sympathy, either in our success or in the pleasure we feel in superiority. The desire for this refined modification of sympathy may be the motive of good and great actions; but it cannot be trusted as a moral principle. Nero's love of sympathy made him anxious to be applauded on the stage as a fiddler and a buffoon. Tiberius banished one of his philosophic courtiers, and persecuted him till the unfortunate man laid violent hands upon himself, merely because he had discovered that the emperor read books in the morning to prepare himself with questions for his literary society at night. Dionysius, the tyrant of Syracuse, sued in the most abject manner for an Olympic crown, and sent a critic to the galleys for finding fault with his verses. Had not these men a sufficient degree of sensibility to praise, and more than a sufficient desire for the sympathy of their fellow-creatures?

* See Smith.

It is not from any perverse love of sophistry, that the word sensibility has been used in these instances instead of *irritability*, which seems better to characterize the temper of a Dionysius or a Tiberius; but, in fact, irritability, in common language, merely denotes an excessive or ill-governed degree of sensibility. The point of excess must be marked: sympathy must be regulated by education; and consequently the methods of directing sensibility to useful and amiable purposes, must be anxiously studied by all who wish for the happiness or virtue of their pupils.

Long before children can understand reasoning, they can feel sympathy; during this early period of their education, example and habit, slight external circumstances, and the propensity to imitation, govern their thoughts and actions. Imitation is the involuntary effect of sympathy in children; hence, those who have the most sympathy are most liable to be improved or injured by early examples. Examples of the malevolent passions should therefore be most carefully excluded from the sight of those who have yet no choice in their sympathy; expressions of kindness and affection in the countenance, the voice, the actions, of all who approach, and of all who have the care of infants, are not only immediately and evidently agreeable to the children, but ought also to be used as the best possible means of exciting benevolent sympathies in their minds. Children who habitually meet with kindness, habitually feel complacency; that species of instinctive, or rather of associated affection, which always rises in the mind from the recollection of past pleasures, is immediately excited in such children by the sight of their parents. By an easy transition of ideas, they expect the same benevolence, even from strangers, which they have experienced from their friends, and their sympathy naturally prepares them to wish for society; this wish is often improperly indulged.

At the age when children begin to unfold their ideas, and to express their thoughts in words, they are such interesting and entertaining companions, that they attract a large portion of our daily attention: we listen eagerly to their simple observations; we enter into their young astonishment at every new object; we are delighted to watch all their emotions; we help them with words to express their ideas; we anxiously endeavour to understand their imperfect reasonings, and are pleased

to find, or put them in the right. This season of universal smiles and courtesy is delightful to children while it lasts, but it soon passes away; they soon speak without exciting any astonishment; and, instead of meeting with admiration for every attempt to express an idea, they are soon repulsed for troublesome volubility; even when they talk sense, they are suffered to talk unheard, or else they are checked for unbecoming presumption. Children feel this change in public opinion and manners most severely; they are not sensible of any change in themselves, except, perhaps, they are conscious of having improved both in sense and language. This unmerited loss of their late gratuitous allowance of sympathy usually operates unfavourably upon the temper of the sufferers; they become shy, and silent, and reserved, if not sullen; they withdraw from our capricious society, and they endeavour to console themselves with other pleasures. It is difficult to them to feel contented with their own little occupations and amusements, for want of the spectators and the audience which used to be at their command. Children of a timid temper, or of an indolent disposition, are quite dispirited and bereft of all energy in these circumstances; others, with greater vivacity, and more voluntary exertion, endeavour to supply the loss of universal sympathy by the invention of independent occupations; but they feel anger and indignation when they are not rewarded with any smiles or any praise for their "virtuous toil." They naturally seek for new companions, either among children of their own age, or among complaisant servants. Immediately all the business of education is at a stand; for neither these servants nor these playfellows are capable of becoming their instructers; nor can tutors hope to succeed, who have transferred their power over the pleasures, and consequently over the affections of their pupils. Sympathy now becomes the declared enemy of all the constituted authorities. What chance is there of obedience or of happiness under such a government?

Would it not be more prudent to prevent than to complain of these evils? Sympathy is our first, best friend in education, and, by judicious management, might long continue our faithful ally.

Instead of lavishing our smiles and our attention upon young children for a short period, just at that age when

they are amusing playthings, should we not do more wisely if we reserved some portion of our kindness a few years longer? By a proper *economy*, our sympathy may last for many years, and may continually contribute to the most useful purposes. Instead of accustoming our pupils early to such a degree of our attention as cannot be supported long on our parts, we should rather suffer them to feel a little ennui, at that age when they can have but few independent or useful occupations. We should employ ourselves in our usual manner, and converse, without allowing children to interrupt us with frivolous prattle; but whenever they ask sensible questions, make just observations, or show a disposition to acquire knowledge, we should assist and encourage them with praise and affection; gradually, as they become capable of taking any part in conversation, they should be admitted into society; and they will learn of themselves, or we may teach them, that useful and agreeable qualities are those by which they must secure the pleasures of sympathy. Esteem being associated with sympathy, will increase its value; and this connexion should be made as soon, and kept as sacred in the mind as possible.

With respect to the sympathy which children feel for each other, it must be carefully managed, or it will counteract, instead of assisting us, in education. It is natural that those who are placed nearly in the same circumstances should feel alike, and sympathize with one another; but children feel only for the present; they have few ideas of the future; and consequently all that they can desire, either for themselves or for their companions, is what will *immediately* please. Education looks to the future; and frequently we must ensure future advantage, even at the expense of present pain or restraint. The companion and the tutor then, supposing each to be equally good and equally kind, must command, in a very different degree, the sympathy of the child. It may, notwithstanding, be questioned, whether those who are constant companions in their idle hours, when they are *very* young, are likely to be either as fond of one another when they grow up, or even as happy while they are children, as those are who spend less time together. Whenever the humours, interests, and passions of others cross our own, there is an end of sympathy; and this happens almost every hour in the

day with children: it is generally supposed, that they learn to live in friendship with each other, and to bear with one another's little faults habitually; that they even reciprocally cure these faults, and learn, by experience, those principles of honour and justice on which society depends. We may be deceived in this reasoning by a false analogy.

We call the society of children, *society in miniature;* the proportions of the miniature are so much altered, that it is by no means an accurate resemblance of that which exists in the *civilized* world. Among children of different ages, strength, and talents, there must always be tyranny, injustice, and that worst species of inequality, which arises from superior force on the one side, and abject timidity on the other. Of this, the spectators of juvenile disputes and quarrels are sometimes sensible; and they hastily interfere and endeavour to part the combatants, by pronouncing certain moral sentences, such as, "Good boys never quarrel; brothers must love and help one another." But these sentences seldom operate as a charm upon the angry passions; the parties concerned hearing it asserted that they must love one another, at the very instant when they happen to feel that they cannot, are still farther exasperated, and they stand at bay, sullen in hatred, or approach, hypocritical in reconciliation. It is more easy to prevent occasions of dispute than to remedy the bad consequences which petty altercations produce. Young children should be kept asunder at all times, and in all situations, in which it is necessary, or probable, that their appetites and passions should be in direct competition. Two hungry children with their eager eyes fixed upon one and the same basin of bread and milk, do not sympathize with each other, though they have the same sensations; each perceives, that if the other eats the bread and milk, he cannot eat it. Hunger is more powerful than sympathy; but satisfy the hunger of one of the parties, and he will begin to feel for his companion, and will wish that *his* hunger should also be satisfied. Even Mr. Barnet, the epicure, who is so well described in Moore's excellent novel,* *after* he has crammed himself to the throat, asks his wife to "try to eat a bit." Intelligent preceptors will apply the instance

* Edward.

of the basin of bread and milk, in a variety of apparently dissimilar circumstances.

We may observe, that the more quickly children reason, the sooner they discover how far their interests are any way incompatible with the interests of their companions. The more readily a boy calculates, the sooner he will perceive, that if he were to share his basin of bread and milk equally with a dozen of his companions, his own portion must be small. The accuracy of his mental division would prevent him from offering to part with that share which, perhaps, a more ignorant accountant would be ready to surrender at once, without being on that account more generous. Children who are accurate observers of the countenance, and who have a superior degree of penetration, discover very early the symptoms of displeasure or of affection in their friends; they also perceive quickly the dangers of rivalship from their companions. If experience convinces them that they must lose in proportion as their companions gain, either in fame or in favour, they will necessarily dislike them as rivals; their hatred will be as vehement as their love of praise and affection is ardent. Thus, children who have the most lively sympathy, are, unless they be judiciously educated, the most in danger of feeling early the malevolent passions of jealousy and envy. It is inhuman, and in every point of view unjustifiable in us, to excite these painful feelings in children, as we too often do, by the careless or partial distribution of affection and applause. Exact justice will best prevent jealousy; each individual submits to justice, because each, in turn, feels the benefit of its protection. Some preceptors, with benevolent intentions, labour to preserve a perfect equality among their pupils, and, from the fear of exciting envy in those who are inferior, avoid uttering any encomiums upon superior talents and merit. This management seldom succeeds; the truth cannot be concealed; those who feel their own superiority, make painful reflections upon the injustice done to them by the policy of their tutors; those who are sensible of their own inferiority, are not comforted by the courtesy and humiliating forbearance with which they are treated. It is, therefore, best to speak the plain truth; to give to all their due share of affection and applause: at the same time, we should avoid blaming one child at the

moment when we praise another: we should never put our pupils in contrast with one another; nor yet should we deceive them as to their respective excellences and defects. Our comparison should rather be made between what the pupil *has been* and what he *is*, than between what he *is* and what anybody else *is not*.* By this style of praise we may induce children to become emulous of their former selves, instead of being envious of their competitors. Without deceit or affectation, we may also take care to associate general pleasure in a family with particular commendations; thus, if one boy is remarkable for prudence, and another for generosity, we should not praise the generosity of the one at the expense of the prudence of the other, but we should give to each virtue its just measure of applause. If one girl sings, and another draws, remarkably well, we may show that we are pleased with both agreeable accomplishments, without bringing them into comparison. Nor is it necessary that we should be in a desperate hurry to balance the separate degrees of praise which we distribute exactly at the same moment, because if children are sure that the reward of their industry and ingenuity is secured by our justice, they will trust to us, though that reward may be for a few hours delayed. It is only where workmen have no confidence in the integrity or punctuality of their masters, that they are impatient of any accidental delay in the payment of their wages.

With the precautions which have been mentioned, we may hope to see children grow up in real friendship together. The whole sum of their pleasure is much increased by mutual sympathy. This happy moral truth, upon which so many of our virtues depend, should be impressed upon the mind; it should be clearly demonstrated to the reason; it should not be repeated as an *a priori*, sentimental assertion.

Those who have observed the sudden, violent, and surprising effects of emulation in public schools, will regret the want of this *power* in the intellectual education of their pupils at home. Even the acquisition of talents and knowledge ought, however, to be but a secondary consideration, subordinate to the general happiness of our pupils. If we *could* have superior knowledge, upon

* See Rousseau and Williams.

condition that we should have a malevolent disposition and an irritable temper, should we, setting every other moral consideration aside, be willing to make the purchase at such a price? Let any person, desirous to see a striking picture of the effects of scholastic competition upon the moral character, look at the life of that wonder of his age, the celebrated Abeillard. As the taste and manners of the present times are so different from those of the age in which he lived, we see, without any species of deception, the real value of the learning in which he excelled, and we can judge, both of his acquirements and of his character, without prejudice. We see him goaded on, by rivalship and literary ambition, to astonishing exertions at one time; at another, torpid in monkish indolence: at one time, we see him intoxicated with adulation; at another, listless, desponding, abject, incapable of maintaining his own self-approbation without the suffrages of those whom he despised. If his biographer* does him justice, a more selfish, irritable, contemptible, miserable being than the learned Abeillard, could scarcely exist.

A philosopher,† who, if we might judge of him by the benignity of his writings, was surely of a most amiable and happy temper, has yet left us a melancholy and discouraging history of the unsociable condition of men of superior knowledge and abilities. He supposes that those who have devoted much time to the cultivation of their understandings, have habitually less sympathy, or less exercise for their sympathy, than those who live less abstracted from the world; that, consequently, "all their social, and all their public affections, lose their natural warmth and vigour," while their selfish passions are cherished and strengthened, being kept in constant play by literary rivalship. It is to be hoped, that there are men of the most extensive learning and genius, now living, who could, from their own experience, assure us that these are obsolete observations, no longer applicable to modern human nature. At all events, we, who refer so much to education, are hopefully of opinion, that education can prevent these evils,

* Berington. See his Life of Abeillard.

† Dr. John Gregory. Comparative View of the State and Faculties of Man with those of the Animal World. See vol. ii. of Works, from page 100 to 114.

in common with *almost* all the other evils of life. It would be an error, fatal to all improvement, to believe that the cultivation of the understanding impedes the exercise of the social affections. Obviously, a man who secludes himself from the world, and whose whole life is occupied with abstract studies, cannot enjoy any pleasure from his social affections; his admiration of the dead is so constant, that he has no time to feel any sympathy with the living. An individual of this ruminating species is humorously delineated in Mrs. D'Arblay's Camilla. Men who are compelled to unrelenting labour, whether by avarice or by literary ambition, are equally to be pitied. They are not models for imitation; they sacrifice their happiness to some strong passion or interest. Without this ascetic abstinence from the domestic and social pleasures of life, surely persons may cultivate their understandings, and acquire, even by mixing with their fellow-creatures, a variety of useful knowledge.

An ingenious theory* supposes that the exercise of any of our faculties is always attended with pleasure, which lasts as long as that exercise can be continued without fatigue. This pleasure, arising from the due exercise of our mental powers, the author of this theory maintains to be the foundation of our most agreeable sentiments. If there be any truth in these ideas, of how many agreeable sentiments must a man of sense be capable! The pleasures of society must to him increase in an almost incalculable proportion; because, in conversation, his faculties can never want subjects on which they may be amply exercised. The dearth of conversation, which everybody may have felt in certain company, is always attended with mournful countenances, and every symptom of ennui. Indeed, without the pleasures of conversation, society is reduced to meetings of people, who assemble to eat and drink, to show their fine clothes, to weary and to hate each other. The sympathy of *bon vivants* is, it must be acknowledged, very lively and sincere towards each other; but this can last only during the hour of dinner, unless they revive, and prolong, by the powers of imagination, the memory of the feast. Some foreign traveller† tells us,

* Vernet's Théorie des Sentimens Agréables.
† See Varieties of Literature, vol. i.

that "every year at Naples, an officer of the police goes through the city, attended by a trumpeter, who proclaims in all the squares and crossways how many thousand oxen, calves, lambs, hogs, &c. the Neapolitans have had the honour of eating in the course of the year. The people all listen with extreme attention to this proclamation, and are immoderately delighted at the huge amount."

A degree, and scarcely one degree, above the brute sympathy of good eaters, is that gregarious propensity which is sometimes honoured with the name of sociability. The current sympathy, or appearance of sympathy, which is to be found among the idle and frivolous in fashionable life, is wholly unconnected with even the idea of esteem. It is therefore pernicious to all who partake of it; it excites to no great exertions; it rewards neither useful nor amiable qualities: on the contrary, it is to be obtained by vice rather than by virtue; by folly much more readily than by wisdom. It is the mere follower of fashion and of dissipation, and it keeps those in humour and countenance who ought to hear the voice of public reproach, and who might be roused by the fear of disgrace or the feelings of shame, to exertions which should justly entitle them to the approbation and affection of honourable friends.

Young people who are early in life content with this *convivial* sympathy, may, in the common phrase, become *very good pleasant companions;* but there is little chance that they should ever become any thing more, and there is great danger that they may be led into any degree of folly, extravagance, or vice, to which fashion and the voice of numbers invite. It sometimes happens, that men of superior abilities have such an indiscriminate love of applause and sympathy, that they reduce themselves to the standard of all their casual companions, and vary their objects of ambition with the opinion of the silly people with whom they chance to associate. In public life, party spirit becomes the ruling principle of men of this character; in private life, they are addicted to clubs and associations of all sorts, in which the contagion of sympathy has a power which the sober influence of reason seldom ventures to correct. The waste of talents and the total loss of principle to which this indiscriminate love of sympathy leads, should warn us to guard against its influence by early education.

The gregarious propensity in childhood should not be indulged without precautions: unless their companions are well educated, we can never be reasonably secure of the conduct or happiness of our pupils: from sympathy, they catch all the wishes, tastes, and ideas of those with whom they associate; and what is still worse, they acquire the dangerous habits of resting upon the support, and of wanting the stimulus of numbers. It is, surely, far more prudent to let children feel a little ennui, from the want of occupation and of company, than to purchase for them the juvenile pleasures of society at the expense of their future happiness. Childhood, as a part of our existence, ought to have as great a share of happiness as it can enjoy compatibly with the advantage of the other seasons of life. By this principle we should be guided, in all which we allow and in all which we refuse to children; by this rule, we may avoid unnecessary severity and pernicious indulgence.

As young people gradually acquire knowledge, they will learn to *converse;* and when they have the habits of conversing rationally, they will not desire companions who can only chatter. They will prefer the company of friends, who can sympathize in their occupations, to the presence of ignorant idlers, who can fill up the void of ideas with nonsense and noise. Some people have a notion that the understanding and the *heart* are not to be educated at the same time; but the very reverse of this is, perhaps, true; neither can be brought to any perfection, unless both are cultivated together.

We should not, therefore, expect premature virtues. During childhood, but few opportunities occur of exerting the virtues which are recommended in books, such as humanity and generosity.

The *humanity* of children cannot, perhaps, properly be said to be exercised upon animals; they are frequently extremely fond of animals, but they are not always equable in their fondness; they sometimes treat their favourites with that caprice which favourites are doomed to experience; this caprice degenerates into cruelty, if it is resented by the sufferer. We must not depend merely upon the natural feelings of compassion as preservatives against cruelty; the *instinctive* feelings of compassion are strong among uneducated people;

yet these do not restrain them from acts of cruelty. They take delight, it has often been observed, in all tragical, sanguinary spectacles, because these excite emotion, and relieve them from the listless state in which their days usually pass. It is the same with all persons, in all ranks of life, whose minds are uncultivated.* Until young people have fixed *habits* of benevolence, and a taste for occupation, perhaps it is not prudent to trust them with the care or protection of animals. Even when they are enthusiastically fond of them, they cannot, by their utmost ingenuity, make the animals so happy in a state of captivity as they would be in a state of liberty. They are apt to insist upon doing animals good against their will, and they are often unjust in the defence of their favourites. A boy of seven years old once knocked down his sister, to prevent her crushing his caterpillar.†

Children should not be taught to confine their benevolence to those animals which are thought beautiful; the fear and disgust which we express at the sight of certain unfortunate animals, which we are pleased to call ugly and shocking, are observed by children, and these associations lead to cruelty. If we do not prejudice our pupils by foolish exclamations; if they do not, from sympathy, catch our absurd antipathies, their benevolence towards the animal world will not be illiberally confined to favourite lapdogs and singing-birds. From association, most people think that frogs are ugly animals. L——, a boy between five and six years old, once begged his mother to come out to look at a *beautiful* animal which he had just found; she was rather surprised to find that this beautiful creature was a frog.

If children never see others torment animals, they will not think that cruelty can be an amusement; but they may be provoked to revenge the pain which is inflicted upon them; and therefore we should take care not to put children in situations where they are liable to be hurt or terrified by animals. Could we possibly expect that Gulliver should love the Brobdignagian wasp

* Can it be true, that an English nobleman, in the 18th century, won a bet by procuring a man to eat a cat alive?

† See Moore's Edward, for the Boy and Larks, an excellent story for children.

that buzzed round his cake, and prevented him from eating his breakfast? Could we expect that Gulliver should be ever reconciled to the rat against which he was obliged to draw his sword? Many animals are, to children, what the wasp and the rat were to Gulliver. Put bodily fear out of the case—it required all uncle Toby's benevolence to bear the buzzing of a gnat while he was eating his dinner. Children, even when they have no cause to be afraid of animals, are sometimes in situations to be provoked by them; and the nice casuist will find it difficult to do strict justice upon the offended and the offenders.

October 2, 1796. S——, nine years old, took care of his brother H——'s hotbed for some time, when H—— was absent from home. He was extremely anxious about his charge; he took one of his sisters to look at the hotbed, showed her a hole where the mice came in, and expressed great hatred against the whole race. He the same day asked his mother for a bait for the mousetrap; his mother refused to give him one, telling him that she did not wish he should learn to kill animals. How good-nature sometimes leads to the opposite feeling! S——'s love for his brother's cucumbers made him *imagine* and compass the death of the mice. Children should be protected against animals which we do not wish that they should hate: if cats scratch them, and dogs bite them, and mice devour the fruits of their industry, children must consider these animals as enemies; they cannot love them, and they may learn the habit of revenge, from being exposed to their insults and depredations. Pythagoras himself would have insisted upon his exclusive right to the vegetables on which he was to subsist, especially if he had raised them by his own care and industry. Buffon,* notwithstanding all his benevolent philosophy, can scarcely speak with patience of his enemies, the field-mice; which, when he was trying experiments upon the culture of forest trees, tormented him perpetually by their insatiable love of acorns. "*I was terrified*," says he, "at the discovery of half a bushel, and often a whole bushel, of acorns in each of the holes inhabited by these little animals; they had collected these acorns for their winter provision." The philosopher gave orders im-

* Mem. de l'Acad. R. for the vear 1742, p. 332.

mediately for the erection of a great number of traps and snares, baited with broiled nuts; in less than three weeks, nearly three hundred fieldmice were killed *or taken prisoners.* Mankind are obliged to carry on a defensive war with the animal world. "Eat or be eaten," says Doctor Darwin, "is the great law of nature." It is fortunate for us that there are butchers by profession in the world, and rat-catchers and cats, otherwise our habits of benevolence and sympathy would be utterly destroyed. Children, though they must perceive the necessity for destroying certain animals, need not be themselves executioners; they should not conquer the natural repugnance to the sight of the struggles of pain and the convulsions of death; their aversion to being the cause of pain should be preserved, both by principle and habit. Those who have not been habituated to the bloody form of cruelty, can never fix their eye upon her without shuddering; even those to whom she may have, in some instances, been early familiarized, recoil from her appearance in any shape to which they have not been accustomed. At one of the magnificent shows with which Pompey* entertained the Roman people for five days successively, the populace enjoyed the death of wild beasts: five hundred lions were killed; but, on the last day, when twenty elephants were put to death, the people, unused to the sight, and moved by the lamentable howlings of these animals, were seized with sudden compassion; they execrated Pompey himself for being the author of so much cruelty.

Charity for the poor is often inculcated in books for children; but how is this virtue to be actually brought into practice in childhood? Unless proper objects of charity are selected by the parents, children have no opportunities of discovering them; they have not sufficient knowledge of the world to distinguish truth from falsehood in the complaints of the distressed; nor have they sufficiently enlarged views to discern the best means of doing good to their fellow-creatures. They may give away money to the poor, but they do not always feel the value of what they give: they give counters: supplied with all the necessaries and luxuries of life, they have no use for money; they feel no privation; they make no sacrifice in giving money away, or,

* See Middleton's Life of Cicero, vol. i. p. 474.

at least, none worthy to be extolled as heroic. When children grow up, they learn the value of money; their generosity will then cost them rather more effort, and yet can be rewarded only with the same expressions of gratitude, with the same blessings from the beggar, or the same applause from the spectator.

Let us put charity out of the question, and suppose that the generosity of children is displayed in making presents to their companions, still there are difficulties. These presents are usually baubles, which at the best can encourage only a frivolous taste. But we must further consider, that even generous children are apt to expect generosity equal to their own from their companions; then come tacit or explicit comparisons of the value or elegance of their respective gifts; the difficult rules of exchange and barter are to be learned; and nice calculations of *Tare and Tret* are entered into by the repentant borrowers and lenders. A sentimental, too often ends in a commercial intercourse; and those who begin with the most munificent dispositions, sometimes end with selfish discontent, low cunning, or disgusting ostentation. Whoever has carefully attended to young makers of presents and makers of bargains, will not think this account of them much exaggerated.

"Then what is to be done? How are the social affections to be developed? How is the sensibility of children to be tried? How is the young heart to display its most amiable feelings?" a sentimental preceptress will impatiently inquire.

The amiable feelings of the heart need not be displayed; they may be sufficiently exercised without the stimulus either of our eloquence or our applause. In Madame de Silleri's account of the education of the children of the Duke of Orleans, there appears rather too much sentimental artifice and management. When the Dutchess of Orleans was ill, the children were instructed to write "charming notes" from day to day, and from hour to hour, to inquire how she did. Once when a servant was going from St. Leu to Paris, Madame de Silleri asked her pupils if they had any commissions; the little Duke de Chartres said, yes, and gave a message about a birdcage, but he did not recollect to write to his mother, till somebody whispered to him that he had forgotten it. Madame de Silleri calls this childish forgetfulness a "heinous offence;"

but was it not very natural, that the boy should think of his birdcage? and what mother would wish that her children should have it put in their head to inquire after her health in the complimentary style? Another time Madame de Silleri is displeased with her pupils, because they did not show sufficient sympathy and concern for her when she had a headache or sore throat. The exact number of messages which, consistently with the strict duties of friendship, they ought to have sent, are upon another occasion prescribed.

"I had yesterday afternoon a violent attack of the cholic, and you discovered the greatest sensibility. By the journal of M. le Brun, I find it was the Duke de Montpensier who thought this morning of writing to inquire how I did. You left me yesterday in a very calm state, and there was no reason for anxiety; but, consistently with the strict duties of friendship, you ought to have given orders before you went to bed, for inquiries to be made at eight o'clock in the morning, to know whether I had had any return of my complaint during the night; and you should again have sent at ten, to learn from myself, the instant I awoke, the exact state of my health. Such are the benevolent and tender cares which a lively and sincere friendship dictates. You must accustom yourselves to the observance of them, if you wish to be beloved."

Another day, Madame de Silleri told the Duke de Chartres that he had a very idiotic appearance, because, when he went to see his mother, his attention was taken up by two paroquets which happened to be in the room. All these reproaches and documents could not, we should apprehend, tend to increase the real sensibility and affection of children. Gratitude is one of the most certain, but one of the latest, rewards, which preceptors and parents should expect from their pupils. Those who are too impatient to wait for the gradual development of the affections, will obtain from their children, instead of warm, genuine, enlightened gratitude, nothing but the expression of cold, constrained, stupid hypocrisy. During the process of education, a child cannot perceive its ultimate end; how can he judge whether the means employed by his parents are well adapted to effect their purposes? Moments of restraint and of privation, or perhaps of positive pain, must be endured by children under the mildest system of edu-

cation: they must, therefore, perceive, that their parents are the immediate cause of some evil to them; the remote good is beyond their view. And can we expect from an infant the systematic resignation of an optimist? Belief upon trust is very different from that which arises from experience; and no one, who understands the human heart, will expect incompatible feelings: in the mind of a child, the feeling of present pain is incompatible with gratitude. Mrs. Macauley mentions a striking instance of extorted gratitude. A poor child who had been taught to return thanks for every thing, had a bitter medicine given to her; when she had drank it, she courtesied and said, "Thank you for my good stuff." There was a mistake in the medicine, and the child died the next morning.

Children who are not sentimentally educated, often offend by their simplicity, and frequently disgust people of impatient feelings by their apparent indifference to things which are expected to touch their sensibility. Let us be content with nature, or rather let us never exchange simplicity for affectation. Nothing hurts young people more than to be watched continually about their feelings, to have their countenances scrutinized, and the degrees of their sensibility measured by the surveying eye of the unmerciful spectator. Under the constraint of such examinations, they can think of nothing, but that they are looked at, and feel nothing but shame or apprehension: they are afraid to lay their minds open, lest they should be convicted of some deficiency of feeling. On the contrary, children who are not in dread of this sentimental inquisition, speak their minds, the truth, and the whole truth, without effort or disguise: they lay open their hearts, and tell their thoughts as they arise, with simplicity that would not fear to enter even "The palace of Truth."*

A little girl, Ho——, who was not quite four years old, asked her mother to give her a plaything: one of her sisters had just before asked for the same thing. "I cannot give it to you both," said the mother.

Ho——. No, but I wish you to give it to me, and not to E——.

Mother. Don't you wish your sister to have what she wants?

* See Le Palais de la Verité.—Madame de Genlis Veillées du Château.

Ho——. Mother, if I say that I *don't* wish so, will you give it to me?

Perhaps this *naiveté* might have displeased some scrupulous admirers of politeness, who could not discover in it symptoms of that independent simplicity of character, for which the child who made this speech was distinguished.

"Do you *always* love me?" said a mother to her son, who was about four years old.

"Always," said the child, "except when I am asleep."

Mother. "And why do you not love me when you are asleep?"

Son. "Because I do not think of you then."

This sensible answer showed that the boy reflected accurately upon his own feelings, and a judicious parent must consequently have a sober certainty of his affection. The thoughtless caresses of children who are never accustomed to reason, are lavished alike upon strangers and friends, and their fondness of to-day may, without any reasonable cause, become aversion by to-morrow.

Children are often asked to tell which of their friends they love the best, but they are seldom required to assign any reason for their choice. It is not prudent to question them frequently about their own feelings; but whenever they express any decided preference, we should endeavour to *lead*, not to *drive* them to reflect upon the reasons for their affection. They will probably at first mention some particular instance of kindness which they have lately received from the person whom they prefer. "I like such a person because he mended my top."—"I like such another because he took me out to walk with him and let me gather flowers." By degrees we may teach children to generalize their ideas, and to perceive that they like people for being either useful or agreeable.

The desire to return kindness by kindness arises very early in the mind; and the hope of conciliating the good-will of the powerful beings by whom they are surrounded, is one of the first wishes that appears in the minds of intelligent and affectionate children. From this sense of mutual dependance the first principles of social intercourse are deduced; and we may render our pupils either mean sycophants, or useful and honourable members of society, by the methods which we use to

direct their first efforts to please. It should be our object to convince them, that the exchange of mutual good offices contributes to happiness; and while we connect the desire to assist others with the perception of the beneficial consequences that eventually arise to themselves, we may be certain that children will never become blindly selfish or idly sentimental. We cannot help admiring the simplicity, strength of mind, and good sense, of a little girl of four years old, who, when she was put into a stagecoach with a number of strangers, looked round upon them all, and, after a few minutes' silence, addressed them, with the imperfect articulation of infancy, in the following words:

"If you'll be good to me, I'll be good to you."

While we were writing upon sympathy and sensibility, we met with the following apposite passage:

"In 1765, I was," says M. de St. Pierre, "at Dresden, at a play acted at court; it was the Pere de Famille. The electoress came in with one of her daughters, who might be about five or six years old. An officer of the Saxon guards, who came with me to the play, whispered, 'That child will interest you as much as the play.' As soon as she was seated, she placed both her hands on the front of the box, fixed her eyes upon the stage, and continued with her mouth open, all attention to the motions of the actors. It was truly touching to see their different passions painted on her face as in a glass. There appeared in her countenance successively, anxiety, surprise, melancholy, and grief; at length, the interest increasing in every scene, tears began to flow, which soon ran in abundance down her little cheeks; then came agitation, sighs, and loud sobs; at last they were obliged to carry her out of the box, lest she should choke herself with crying. My next neighbour told me, that every time that this young princess came to a pathetic play, she was obliged to leave the house before the catastrophe."

"I have seen," continues M. de St. Pierre, "instances of sensibility still more touching among the children of the common people, because the emotion was not here produced by any theatrical effect. As I was walking some years ago in the Pré St. Gervais, at the beginning of winter, I saw a poor woman lying on the ground, busied in weeding a bed of sorrel; near her was a little girl of six years old at the utmost, standing motionless,

and all purple with cold. I addressed myself to this woman, who appeared to be ill, and I asked her what was the matter with her. Sir, said she, for these three months I have suffered terribly from the rheumatism, but my illness troubles me less than this child; she never will leave me; if I say to her, Thou art quite frozen, go and warm thyself in the house, she answers me, Alas! mamma, if I leave you, you'll certainly fall ill again!"

"Another time, being at Marly, I went to see, in the groves of that magnificent park, that charming group of children who are feeding with vine leaves and grapes a goat which seems to be playing with them. Near this spot is an open summer-house, where Louis XV., on fine days, used sometimes to take refreshment. As it was showery weather, I went to take shelter for a few minutes. I found there three children, who were much more interesting than children of marble. They were two little girls, very pretty, and very busily employed in picking up, all round the summer-house, dry sticks, which they put into a sort of wallet which was lying upon the king's table, while a little ill-clothed, thin boy, was devouring a bit of bread in one corner of the room. I asked the tallest of the children, who appeared to be between eight and nine years old, what she meant to do with the wood which she was gathering together with so much eagerness. She answered, 'Sir, you see that little boy, he is very unhappy. He has a mother-in-law' (Why always *a mother-in-law*?) 'He has a mother-in-law, who sends him all day long to look for wood; when he does not bring any home, he is beaten; when he has got any, the Swiss who stands at the entrance of the park takes it all away from him, and keeps it for himself. The boy is almost starved with hunger, and we have given him our breakfast.' After having said these words, she and her companion finished filling the little wallet, packed it upon the boy's shoulders, and ran before their unfortunate friend, to see that he might pass in safety."

We have read these three anecdotes to several children, and have found that the *active* friends of the little wood-cutter were the most admired. It is probable, that among children who have been much praised for expressions of sensibility, the young lady who wept so bitterly at the playhouse would be preferred; affection-

ate children will like the little girl who stood, purple with cold, beside her sick mother; but if they have been well educated, they will probably express some surprise at her motionless attitude; they will ask why she did not try to help her mother to weed the bed of sorrel.

It requires much skill and delicacy in our conduct towards children, to preserve a proper medium between the indulging and the repressing of their sensibility. We are cruel towards them when we suspect their genuine expressions of affection; nothing hurts the temper of a generous child more than this species of injustice. Receive his expressions of kindness and gratitude with cold reserve, or a look that implies a doubt of his truth, and you give him so much pain, that you not only repress, but destroy his affectionate feelings. On the contrary, if you appear touched and delighted by his caresses, from the hope of pleasing, he will be naturally inclined to repeat such demonstrations of sensibility: this repetition should be gently discouraged, lest it should lead to affectation. At the same time, though we take this precaution, we should consider, that children are not early sensible that affectation is either ridiculous or disgusting; they are not conscious of doing any thing wrong by repeating what they have once perceived to be agreeable in their own, or in the manners of others. They frequently imitate, without any idea that imitation is displeasing; their object, as Locke observes, is to please by affectation; they only mistake the means: we should rectify this mistake without treating it as a crime.

A little girl of five years stood beside her mother, observing the distribution of a dish of strawberries, the first strawberries of the year; and seeing a number of people busily helping and being helped to cream and sugar, said, in a low voice, not meant to attract attention, "I like to see people helping one another." Had the child, at this instant, been praised for this natural expression of sympathy, the pleasure of praise would have been immediately substituted in her mind, instead of the feeling of benevolence, which was in itself sufficiently agreeable; and, perhaps, from a desire to please, she would, upon the next favourable occasion, have repeated the same sentiment; this we should immediately call affectation; but how could the child foresee, that the repetition of what we formerly liked would be of-

fensive? We should not first extol sympathy, and then disdain affectation; our encomiums frequently produce the faults by which we are disgusted. Sensibility and sympathy, when they have proper objects and full employment, do not look for applause; they are sufficiently happy in their own enjoyments. Those who have attempted to teach children must have observed, that sympathy is immediately connected with all the imitative arts; the nature of this connexion, more especially in poetry and painting, has been pointed out with ingenuity and eloquence by those* whose excellence in these arts entitles their theories to our prudent attention. We shall not attempt to repeat; we refer to their observations. Sufficient occupation for sympathy may be found by cultivating the talents of young people.

Without repeating here what has been said in many other places, it may be necessary to remind all who are concerned in *female* education, that peculiar caution is necessary to manage female sensibility: to make, what is called the heart, a source of permanent pleasure, we must cultivate the reasoning powers at the same time that we repress the enthusiasm of *fine feeling*. Women, from their situation and duties in society, are called upon rather for the daily exercise of quiet domestic virtues, than for those splendid acts of generosity, or those exaggerated expressions of tenderness, which are the characteristics of heroines in romance. Sentimental authors, who paint with enchanting colours all the graces and all the virtues in happy union, teach us to expect that this union should be indissoluble. Afterward, from the natural influence of association, we expect in real life to meet with virtue when we see grace; and we are disappointed, almost disgusted, when we find virtue unadorned. This false association has a double effect upon the conduct of women; it prepares them to be pleased, and it excites them to endeavour to please by adventitious charms, rather than by those qualities which merit esteem. Women who have been much addicted to common novel-reading, are always acting in imitation of some Jemima, or Almeria, who never existed. and they perpetually mistake plain William and Thomas for "*My Beverly!*" They have an-

* Sir Joshua Reynolds's Discourses. Dr. Darwin's Critical Interludes in the Botanic Garden, and his chapter on Sympathy and Imitation in Zoonomia.

other peculiar misfortune; they require continual great emotions to keep them in tolerable humour with themselves; they must have tears in their eyes, or they are apprehensive that their hearts are growing hard. They have accustomed themselves to such violent stimulus, that they cannot endure the languor to which they are subject in the intervals of delirium. Pink appears pale to the eye that is used to scarlet; and common food is insipid to the taste which has been vitiated by the high seasonings of art.

A celebrated French actress, in the wane of her charms, and who, for that reason, began to feel weary of the world, exclaimed, while she was recounting what she had suffered from a faithless lover, "Ah! c'étoit le bon temps, j'étois bien malheureuse!"*

The happy age in which women can, with any grace or effect, be romantically wretched, is, even with the beautiful, but a short season of felicity. The sentimental sorrows of any female mourner, of more than thirty years standing, command but little sympathy and less admiration; and what other consolations are suited to sentimental sorrows?

Women who cultivate their reasoning powers, and who acquire tastes for science and literature, find sufficient variety in life, and do not require the *stimulus* of dissipation or of romance. Their sympathy and sensibility are engrossed by proper objects, and connected with habits of useful exertion; they usually feel the affection which others profess, and actually enjoy the happiness which others describe.

CHAPTER XI.

ON VANITY, PRIDE, AND AMBITION.

We shall not weary the reader by any commonplace declamations upon these moral topics. No great subtlety of distinction is requisite to mark the differences between vanity and pride, since those differences have

* D'Alembert.

been pointed out by every moralist who has hoped to please mankind by an accurate delineation of the failings of human nature. Whatever distinctions exist, or may be supposed to exist, between the characters in which pride or vanity predominates, it will readily be allowed that there is one thing in which they both agree —they both receive pleasure from the approbation of others, and from their own. We are disgusted with the vain man, when he intemperately indulges in praise of himself, however justly he may be entitled to that praise, because he offends against those manners which we have been accustomed to think polite, and he claims from us a greater portion of sympathy than we can possibly afford to give him. We are not, however, pleased by the negligence with which the proud man treats us; we do not like to see that he can exist in independent happiness, satisfied with a cool internal sense of his own merits; he loses our sympathy, because he does not appear to value it.

If we could give our pupils exactly the character we wish, what degrees of vanity and pride should we desire them to have, and how should we regulate these passions? Should we not desire that their ambition to excel might be sufficient to produce the greatest possible exertions, directed to the best possible objects; that their opinion of themselves should be strictly just, and should never be expressed in such a manner as to offend against propriety, or so as to forfeit the sympathy of mankind? As to the degree of pleasure which they should feel from their secret reflections upon their own meritorious conduct, we should certainly desire this to be as lasting and as exquisite as possible. A considerable portion of the happiness of life arises from the sense of self-approbation; we should, therefore, secure this gratification in its utmost perfection. We must observe, that however independent the proud man imagines himself to be of the opinions of all around him, he must form his judgment of his own merits from some standard of comparison, by some laws drawn from observation of what mankind in general, or those whom he particularly esteems, think wise or amiable. He must begin then in the same manner with the vain man, whom he despises, by collecting the suffrages of others; if he selects, with perfect wisdom, the opinions which are most just, he forms his character upon excellent principles; and the

more steadily he abides by his first views, the more he commands and obtains respect. But if, unfortunately, he makes a mistake at first, his obstinacy in error is not to be easily corrected, for he is not affected by the general voice of disapprobation, nor by the partial loss of the common pleasures of sympathy. The vain man, on the contrary, is in danger, let him form his first notions of right and wrong ever so justly, of changing them when he happens to be in society with any persons who do not agree with him in their moral opinions, or who refuse him that applause which supports his own feeble self-approbation. We must, in education, endeavour to guard against these opposite dangers; we must enlighten the understanding, to give our pupils the power of forming their rules of conduct rightly, and we must give them sufficient strength of mind to abide by the principles which they have formed. When we first praise children, we must be careful to associate pleasure with those things which are really deserving of approbation. If we praise them for beauty, or for any happy expressions which entertain us, but which entertain us merely as the sprightly nonsense of childhood, we create vanity in the minds of our pupils; we give them false ideas of merit; and, if we excite them to exertions, they are not exertions directed to any valuable objects. Praise is a strong stimulus to industry if it be properly managed; but if we give it in too large and lavish quantities early in life, we shall soon find that it loses its effect, and yet that the *patient* languishes for want of the excitation which custom has rendered almost essential to his existence. We say the *patient*, for this mental languor may be considered entirely as a disease. For its cure see the second volume of Zoonomia, under the article Vanity.

Children who are habituated to the daily and hourly food of praise, continually require this sustenance unless they are attended to; but we may gradually break bad habits. It is said that some animals can supply themselves at a single draught with what will quench their thirst for many days. The human animal may, perhaps, by education, be taught similar foresight and abstinence in the management of his thirst for flattery. Young people who live with persons that seldom bestow praise, do not expect that stimulus; and they are content if they discover by certain signs, either

in the countenance, manner, or tone of voice, of those whom they wish to please, that they are tolerably well satisfied. It is of little consequence by what language approbation is conveyed, whether by words, or looks, or by that silence which speaks with so much eloquence; but it is of great importance that our pupils should set a high value upon the expressions of our approbation. They will value it in proportion to their esteem and their affection for us; we include in the word *esteem*, a belief in our justice and in our discernment. Expressions of affection, associated with praise, not only increase the pleasure, but they alter the nature of that pleasure; and if they gratify vanity, they at the same time excite some of the best feelings of the heart. The selfishness of vanity is corrected by this association; and the two pleasures of sympathy and self-complacency should never, when we can avoid it, be separated.

Children who are well educated, and who have acquired an habitual desire for the approbation of their friends, may continue absolutely indifferent to the praise of strangers, or of *common* acquaintance; nor is it probable that this indifference should suddenly be conquered, because the greatest part of the pleasure of praise in their mind depends upon the esteem and affection which they feel for the persons by whom it is bestowed. Instead of desiring that our pupils should entirely repress, in the company of their own family, the pleasure which they feel from the praise that is given to them by their friends, we should rather indulge them in this natural expansion of mind; we should rather permit their youthful vanity to display itself openly to those whom they most love and esteem, than drive them, by unreasonable severity, and a cold refusal of sympathy, into the society of less rigid observers. Those who have an aversion to vanity will not easily bear with its uncultivated intemperance of tongue; but they should consider that much of what disgusts them is owing to the simplicity of childhood, which must be allowed time to learn that respect for the feelings of others which teaches us to restrain our own: but we must not be in haste to restrain, lest we teach hypocrisy instead of strength of mind or real humility. If we expect that children should excel, and should not know that they excel, we expect impossibilities; we expect, at the same time, in-

telligence and stupidity. If we desire that they should be excited by praise, and that, at the same time, they should feel no pleasure in the applause which they have earned, we desire things that are incompatible. If we encourage children to be frank and sincere, and yet, at the same time, reprove them whenever they naturally express their opinions of themselves, or the pleasurable feelings of self-approbation, we shall counteract our own wishes. Instead of hastily blaming children for the sincere and simple expression of their self-complacency, or of their desire for the approbation of others, we should gradually point out to them the truth—that those who refrain from that display of their own perfections which we call vanity, in fact are well repaid for the constraint which they put upon themselves by the superior degree of respect and sympathy which they obtain; that vain people effectually counteract their own wishes, and meet with contempt instead of admiration. By appealing constantly, when we praise, to the judgment of the pupils themselves, we shall at once teach them the habit of rejudging flattery, and substitute, by insensible degrees, patient, steady confidence in themselves, for the wavering, weak impatience of vanity. In proportion as any one's confidence in himself increases, his anxiety for the applause of others diminishes: people are very seldom vain of any accomplishments in which they obviously excel, but they frequently continue to be vain of those which are doubtful. Where mankind have not confirmed their own judgment, they are restless, and continually aim either at convincing others or themselves that they are in the right. Hogarth, who invented a new and original manner of satirising the follies of mankind, was not vain of his talent, but was extremely vain of his historical paintings, which were indifferent performances. Men of acknowledged literary talents are seldom fond of amateurs; but if they are but half satisfied of their own superiority, they collect the tribute of applause with avidity, and without discrimination or delicacy. Voltaire has been reproached with treating strangers rudely who went to Ferney to see and admire a philosopher as a prodigy. Voltaire valued his time more than he did this vulgar admiration; his visiters, whose understanding had not gone through exactly the same process,—who had not, probably, been satisfied with public applause, and who set, perhaps, a

considerable value upon their own praise, could not comprehend this appearance of indifference to admiration in Voltaire, especially when it was well known that he was not insensible of fame. He was, at an advanced age, exquisitely anxious about the fate of one of his tragedies; and a public coronation at the theatre at Paris had power to inebriate him at eighty-four. Those who have exhausted the stimulus of wine may yet be intoxicated by opium. The voice of numbers appears to be sometimes necessary to give delight to those who have been fatigued with the praise of individuals: but this taste for *acclamation* is extremely dangerous. A multitude of good judges seldom meet together.

By a slight difference in their manner of reasoning, two men of abilities, who set out with the same desire for fame, may acquire different habits of pride or of vanity; the one may value the number, the other may appreciate the judgment of his admirers. There is something not only more wise, but more elevated, in this latter species of select triumph; the noise is not so great; the music is better. "If I listened to the music of praise," says an historian, who obviously was not insensible to its charms, "I was more seriously satisfied with the approbation of my *judges*. The candour of Dr. Robertson embraced his disciple. A letter from Mr. Hume overpaid the labour of ten years."* Surely no one can be displeased with this last generous expression of enthusiasm; we are not so well satisfied with Buffon, when he ostentatiously displays the epistles of a prince and an empress.†

Perhaps, by pointing out at proper opportunities the difference in our feelings with respect to vulgar and refined vanity, we might make a useful impression upon those who have yet their habits to form. The conversion of vanity into pride is not so difficult a process as those, who have not analyzed both, might, from the striking difference of their appearance, imagine. By the opposite tendencies of education, opposite characters from the same original dispositions are produced. Cicero, had he been early taught to despise the applause

* Gibbon. Memoirs of his Life and Writings.—Perhaps Gibbon had this excellent line of Mrs. Barbauld's in his memory:

"And pay a life of hardships with a line."

† See Peltier's state of Paris in the years 1795 and 1796.

of the multitude, would have turned away like the proud philosopher, who asked his friends what absurdity he had uttered, when he heard the populace loud in acclamations of his speech; and the cynic whose vanity was seen through the holes of his cloak, might, perhaps, by a slight difference in his education, have been rendered ambitious of the Macedonian purple.

In attempting to convert vanity into pride, we must begin by exercising the vain patient in forbearance of present pleasure; it is not enough to convince his understanding that the advantages of proud humility are great; he may be perfectly sensible of this, and may yet have so little command over himself, that his loquacious vanity may get the better, from hour to hour, of his better judgment. Habits are not to be instantaneously conquered by reason; if we do not keep this fact in our remembrance, we shall be frequently disappointed in education; and we shall, perhaps, end by thinking that reason can do nothing, if we begin by thinking that she can do every thing. We must not expect that a vain child should suddenly break and forget all his past associations; but we may, by a little early attention, prevent much of the trouble of curing, or converting, the disease of vanity.

When children first begin to learn accomplishments, or to apply themselves to literature, those who instruct are apt to encourage them with too large a portion of praise: *the smallest quantity of stimulus that can produce the exertion we desire, should be used;* if we use more, we waste our power, and injure our pupil. As soon as habit has made any exertion familiar, and consequently easy, we may withdraw the original excitation, and the exertion will still continue. In learning, for instance, a new language, at first, while the pupil is in the midst of the difficulties of regular and irregular verbs, and when, in translation, a dictionary is wanted at every moment, the occupation itself cannot be very agreeable; but we are excited by the hope that our labour will every day diminish, and that we shall at last enjoy the entertainment of reading useful and agreeable books. Children, who have not learned by experience the pleasures of literature, cannot feel this hope as strongly as we do; we, therefore, excite them by praise; but by degrees they begin to feel the pleasure of success and occupation; when these are felt, we may and ought to

withdraw the unnecessary excitements of praise. If we continue, we mislead the child's mind; and, while we deprive him of his natural reward, we give him a factitious taste. When any moral habit is to be acquired, or when we wish that our pupil should cure himself of any fault, we must employ at first strong excitement, and reward with warmth and eloquence of approbation; when the fault is conquered, when the virtue is acquired, the extraordinary excitement should be withdrawn, and all this should not be done with an air of mystery and artifice; the child should know all that we do, and why we do it; the sooner he learns how his own mind is managed, the better—the sooner he will assist in his own education.

Everybody must have observed, that languor of mind succeeds to the intoxication of vanity; if we can avoid the intoxication, we shall avoid the languor. Common sayings often imply those sensible observations which philosophers, when they theorize only, express in other words. We frequently hear it said to a child, "Praise spoils you; my praise did you harm; you can't bear praise well; you grow conceited; you become idle; you are good for nothing, because you have been too much flattered." All these expressions show that the consequences of over-stimulating the mind by praise have been vaguely taken notice of in education; but no general rules have been deduced from these observations. With children of different habits and temperaments, the same degree of excitement acts differently, so that it is scarcely possible to fix upon any positive quantity fit for all dispositions—the quantity must be relative; but we may, perhaps, fix upon a criterion by which, in most cases, the proportion may be ascertained. The golden rule,* which an eminent physician has given to the medical world, for ascertaining the necessary and useful quantity of stimulus for weak and feverish patients, may, with advantage, be applied in education. Whenever praise produces the intoxication of vanity, it is hurtful; whenever the appearances of vanity diminish in consequence of praise, we may be satisfied that it does good, that it increases the pupil's confidence in himself, and his strength of mind. We repeat, that persons who have confidence in themselves may be proud,

* See Zoonomia, vol. i. p. 99.

but are never vain; that vanity cannot support herself without the concurring flattery of others; pride is satisfied with his own approbation. In the education of children who are more inclined to pride than to vanity, we must present large objects to the understanding, and large motives must be used to excite voluntary exertion. If the understanding of proud people be not early cultivated, they frequently fix upon some false ideas of honour or dignity, to which they are resolute martyrs through life. Thus the high-born Spaniards, if we may be allowed to reason from the imperfect history of national character,—the Spaniards, who associate the ideas of dignity and indolence, would rather submit to the evils of poverty than to the imaginary disgrace of working for their bread. Volney, and the Baron de Tott, give us some curious instances of the pride of the Turks, which prevents them from being taught any useful arts by foreigners. To show how early associations are formed and supported by pride, we need but recollect the anecdote of the child mentioned by De Tott.* The Baron de Tott bought a pretty toy for a present for a little Turkish friend, but the child was too proud to seem pleased with the toy; the child's grandfather came into the room, saw, and was delighted with the toy, sat down on the carpet, and played with it until he broke it. We like the second childhood of the grandfather better than the premature old age of the grandson.

The self-command which the fear of disgrace ensures, can produce either great virtues or great vices. Revenge and generosity are, it is said, to be found in their highest state among nations and individuals characterized by pride. The early objects which are associated with the idea of honour in the mind, are of great consequence; but it is yet of more consequence to teach proud minds early to bend to the power of reason, or rather to glory in being governed by reason. They should be instructed, that the only possible means of maintaining their opinions among persons of sense, is to support them by unanswerable arguments. They should be taught that, to secure respect, they must deserve it; and their self-denial or self-command, should never obtain that tacit admiration which they most value, except where it is exerted for useful and rational pur-

* See De Tott's Memoirs, p. 138, a note.

poses. The constant custom of appealing, in the last resort, to their own judgment, which distinguishes the proud from the vain, makes it peculiarly necessary that the judgment, to which so much is trusted, should be highly cultivated. A vain man may be tolerably well conducted in life by a sensible friend; a proud man ought to be able to conduct himself perfectly well, because he will not accept of any assistance. It seems that some proud people confine their benevolent virtues within a smaller sphere than others; they value only their own relations, their friends, their country, or whatever is connected with themselves. This species of pride may be corrected by the same means which are used to increase sympathy.* Those who, either from temperament, example, or accidental circumstances, have acquired the habit of repressing and commanding their emotions, must be carefully distinguished from the selfish and insensible. In the present times, when the affectation of sensibility is to be dreaded, we should rather encourage that species of pride which disdains to display the affections of the heart. "You Romans triumph over your tears, and call it virtue; I triumph in my tears," says Caractacus: his tears were respectable, but in general, the Roman triumph would command the most sympathy.

Some people attribute to pride all expressions of confidence in one's self: these may be offensive to common society, but they are sometimes powerful over the human mind, and where they are genuine, mark somewhat superior in character. Much of the effect of Lord Chatham's eloquence, much of his transcendent influence in public, must be attributed to the confidence which he showed in his own superiority. "I trample upon impossibilities!" was an exclamation which no inferior mind would dare to make. Would the House of Commons have permitted any one but Lord Chatham to answer an oration by, "Tell me, gentle shepherd, where!" The danger of failing, the hazard that he runs of becoming ridiculous who verges upon the moral sublime, is taken into our account when we judge of the action, and we pay involuntary tribute to courage and success: but how miserable is the fate of the man who mistakes his own powers, and upon trial is unable to support his

* See Sympathy.

assumed superiority; mankind revenge themselves without mercy upon his ridiculous pride, eager to teach him the difference between insolence and magnanimity. Young people inclined to overrate their own talents, or to undervalue the abilities of others, should frequently have instances given to them from real life, of the mortifications and disgrace to which imprudent boasters expose themselves. Where they are able to demonstrate their own abilities, they run no risk in speaking with decent confidence; but where their success depends, in any degree, either upon fortune or opinion, they should never run the hazard of presumption. Modesty prepossesses mankind in favour of its possessor, and has the advantage of being both graceful and safe: this was perfectly understood by the crafty Ulysses, who neither raised his eyes nor stretched his sceptred hand "when he first rose to speak." We do not, however, recommend this artificial modesty; its trick is soon discovered, and its sameness of dissimulation presently disgusts. Prudence should prevent young people from hazardous boasting; and good-nature and good sense, which constitute real politeness, will restrain them from obtruding their merits to the mortification of their companions: but we do not expect from them total ignorance of their own comparative merit. The affectation of humility, when carried to the extreme, to which all affectation is liable to be carried, appears full as ridiculous, as troublesome, and as offensive as any of the graces of vanity or the airs of pride. Young people are cured of presumption by mixing with society, but they are not so easily cured of any species of affectation.

In the chapter on female accomplishments, we have endeavoured to point out, that the enlargement of understanding in the fair sex which must result from their increasing knowledge, will necessarily correct the feminine foibles of vanity and affectation.

Strong, prophetic, eloquent praise, like that which the great Lord Chatham bestowed on his son, would rather inspire. in a generous soul, noble emulation, than paltry vanity. "On this boy," said he, laying his hand upon his son's head, "descends my mantle, with a double portion of my spirit!" Philip's praise of his son Alexander, when the boy rode the unmanageable horse.*

* See Plutarch.

is another instance of the kind of praise capable of exciting ambition.

As to ambition, we must decide what species of ambition we mean, before we can determine whether it ought to be encouraged or repressed; whether it should be classed among virtues or vices; that is to say, whether it adds to the happiness or misery of human creatures. "The inordinate desire of fame," which often destroys the lives of millions when it is connected with ideas of military enthusiasm, is justly classed among the "*diseases of volition:*" for its description and cure we refer to Zoonomia, vol. ii. Achilles will there appear to his admirers, perhaps, in a new light.

The ambition to rise in the world usually implies a mean, sordid desire of riches, or what are called honours, to be obtained by the common arts of political intrigue, by cabal to win popular favour, or by address to conciliate the patronage of the great. The experience of those who have been governed during their lives by this passion, if passion it may be called, does not show that it can confer much happiness, either in the pursuit or attainment of its objects. See Bubb Doddington's Diary, a most useful book; a journal of the petty anxieties, and constant dependance, to which an ambitious courtier is necessarily subjected. See also Mirabeau's "Secret History of the Court of Berlin," for a picture of a man of great abilities degraded by the same species of low, unprincipled competition. We may find in these books, it is to be hoped, examples which will strike young and generous minds, and which may inspire them with contempt for the objects and the means of vulgar ambition. There is a more noble ambition, by which the enthusiastic youth, perfect in the theory of all the virtues, and warm with yet unextinguished benevolence, is apt to be seized; his heart beats with the hope of immortalizing himself by noble actions; he forms extensive plans for the improvement and the happiness of his fellow-creatures; he feels the want of power to carry these into effect; power becomes the object of his wishes. In the pursuit, in the attainment of this object, how are his feelings changed! M. Necker, in the preface to his work on French finance,* paints, with much eloquence, and with an ap-

* Necker sur l'Administration des Finances de la France, vol. i. p. 98.

pearance of perfect truth, the feelings of a man of virtue and genius, before and after the attainment of political power. The moment when a minister takes possession of his place, surrounded by crowds and congratulations, is well described; and the succeeding moment, when clerks with immense portfolios enter, is a striking contrast. Examples from romance can never have such a powerful effect upon the mind, as those which are taken from real life; but in proportion to the just and lively representation of situations and passions resembling reality, fictions may convey useful moral lessons. In the Cyropædia there is an admirable description of the day spent by the victorious Cyrus, giving audience to the unmanageable multitude, after the taking of Babylon had accomplished the fulness of his ambition.*

It has been observed, that these examples of the insufficiency of the objects of ambition to happiness, seldom make any lasting impression upon the minds of the ambitious. This may arise from two causes; from the reasoning faculty's not having been sufficiently cultivated, or from the habits of ambition being formed before proper examples are presented to the judgment for comparison. Some ambitious people, when they reason coolly, feel and acknowledge the folly of their pursuits; but still, from the force of habit, they act immediately in obedience to the motives which they condemn: others, who have never been accustomed to reason firmly, believe themselves to be in the right in the choice of their objects; and they cannot comprehend the arguments which are used by those who have not the same way of thinking as themselves. If we fairly place facts before young people who have been habituated to reason, and who have not yet been inspired with the passion or enslaved by the habits of vulgar ambition, it is probable that they will not be easily effaced from the memory, and that they will influence the conduct through life.

It sometimes happens to men of a sound understanding and a philosophic turn of mind, that their ambition decreases with their experience. They begin with some ardour, perhaps, an ambitious pursuit; but by degrees they find the pleasure of the occupation sufficient without the fame, which was their original object. This

* Cyropædia, vol. ii. page 303.

is the same process which we have observed in the minds of children with respect to the pleasures of literature, and the taste for sugarplums.

Happy the child who can be taught to improve himself without the stimulus of sweetmeats! Happy the man who can preserve activity without the excitements of ambition!

CHAPTER XII.

BOOKS.

The first books which are now usually put into the hands of a child, are Mrs. Barbauld's Lessons: they are by far the best books of the kind that have ever appeared; those only who know the difficulty and the importance of such compositions in education, can sincerely rejoice, that the admirable talents of such a writer have been employed in such a work. We shall not apologize for offering a few remarks on some passages in these little books, because we are convinced that we shall not offend.

Lessons for Children from three to four years old, should, we think, have been lessons for children from four to five years old; few read, or ought to read, before that age.

"Charles shall have a pretty new lesson."

In this sentence the words pretty and new are associated; but they represent ideas which ought to be kept separate in the mind of a child. The love of novelty is cherished in the minds of children by the common expressions that we use to engage them to do what we desire. "You shall have a new whip, a new hat," are improper modes of expression to a child. We have seen a boy who had literally twenty new whips in one year, and we were present when his father, to comfort him when he was in pain, went out to buy him a *new* whip, though he had two or three scattered about the room.

The description, in the first part of Mrs. Barbauld's Lessons, of the naughty boy who tormented the robin,

and who was afterward supposed to be eaten by bears, is more objectionable than any in the book: the idea of killing is in itself very complex, and, if explained, serves only to excite terror; and how can a child be made to comprehend why a cat *should* catch mice and not kill birds; or why should this species of honesty be expected from an animal of prey?

"I want my dinner."

Does Charles take it for granted, that what he eats is his own, and that he *must* have his dinner? These and similar expressions are words of course; but young children should not be allowed to use them: if they are permitted to assume the tone of command, the feelings of impatience and ill-temper quickly follow, and children become the little tyrants of a family. Property is a word of which young people have general ideas, and they may, with very little trouble, be prevented from claiming things to which they have no right. Mrs. Barbauld has judiciously chosen to introduce a little boy's daily history in these books; all children are extremely interested for Charles, and they are very apt to expect, that every thing which happens to him is to happen to them; and they believe that every thing he does is right; therefore, his biographer should, in another edition, revise any of his expressions which may mislead the future tribe of his little imitators.

"Maid, come and dress Charles."

After what we have already said with respect to servants, we need only observe, that this sentence for Charles should not be read by a child; and that in which the maid is said to bring home a gun, &c., it is easy to strike a pencil line across. All the passages which might have been advantageously omitted in these excellent little books, have been carefully obliterated before they were put into the hands of children, by a mother who knew the danger of early false associations.

"Little boys don't eat butter."

"Nobody wears a hat in the house."

This is a very common method of speaking, but it certainly is not proper towards children. Affirmative sentences should always express real facts. Charles must know that some little boys do eat butter; and that some people wear their hats in their houses. This mode of expression, "Nobody does that!"—"Every-

body does this!" lays the foundation for prejudice in the mind. This is the language of fashion, which, more than conscience, makes cowards of us all.

"I want some wine."

Would it not be better to tell Charles, in reply to this speech, that wine is not good for him, than to say, "Wine for little boys! I never heard of such a thing!" If Charles were to be ill, and it should be necessary to give him wine; or were he to see another child drink it, he would lose confidence in what was said to him. We should be very careful of our words, if we expect our pupils to have confidence in us; and if they have not, we need not attempt to educate them.

"The moon shines at night, when the sun has gone to bed."

When the sun is out of sight would be more correct, though not so pleasing, perhaps, to the young reader. It is very proper to teach a child, that when the sun disappears, when the sun is below the horizon, it is the time when most animals go to rest; but we should not do this by giving so false an idea, as that the sun is gone to bed. Every thing relative to the system of the universe is above the comprehension of a child; we should, therefore, be careful to prevent his forming erroneous opinions. We should wait for a riper period of his understanding before we attempt positive instruction upon abstract subjects.

The enumeration of the months in the year, the days in the week, of metals, &c., forms excellent lessons for a child who is just beginning to learn to read. The classification of animals into quadrupeds, bipeds, &c., is another useful specimen of the manner in which children should be taught to generalize their ideas. The pathetic description of the poor timid hare running from the hunters, will leave an impression upon the young and humane heart, which may, perhaps, save the life of many a hare. The poetic beauty and eloquent simplicity of many of Mrs. Barbauld's Lessons, cultivate the imagination of children and their taste, in the best possible manner.

The description of the white swan, with her long arched neck, "winning her easy way" through the waters, is beautiful; so is that of the nightingale singing upon her lone bush by moonlight. Poetic descriptions of real objects are well suited to children; apostrophe and personification they understand; but all allegoric

poetry is difficult to manage for them, because they mistake the poetic attributes for reality, and they acquire false and confused ideas. With regret, children close Mrs. Barbauld's little books, and parents become yet more sensible of their value, when they perceive that none can be found immediately to supply their place, or to continue the course of agreeable ideas which they have raised in the young pupil's imagination.

"Evenings at Home" do not immediately join to Lessons for Children from three to four years old; and we know not where to find any books to fill the interval properly. The popular character of any book is easily learned, and its general merit easily ascertained; this may satisfy careless, indolent tutors, but a more minute investigation is necessary to parents who are anxious for the happiness of their family, or desirous to improve the art of education. Such parents will feel it to be their duty to look over every page of a book before it is trusted to their children; it is an arduous task, but none can be too arduous for the enlightened energy of parental affection. We are acquainted with the mother of a family, who has never trusted any book to her children without having first examined it herself with the most scrupulous attention; her care has been repaid with that success in education which such care can alone ensure. We have several books before us marked by her pencil, and volumes which, having undergone some necessary operations by her scissors, would, in their mutilated state, shock the sensibility of a nice librarian. But shall the education of a family be sacrificed to the beauty of a page, or even to the binding of a book? Few books can safely be given to children without the previous use of the pen, the pencil, and the scissors. In the books which we have before us, in their corrected state, we see sometimes a few words blotted out; sometimes half a page, sometimes many pages are cut out. In turning over the leaves of "The Children's Friend," we perceive that the different ages at which different stories should be read, have been marked; and we were surprised to meet with some stories marked for six years old and some for sixteen, in the same volume. We see that different stories have been marked with the initials of different names, by this cautious mother, who considered the temper and habits of her children, as well as their ages.

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As far as these notes refer peculiarly to her own family, they cannot be of use to the public; but the principles which governed a judicious parent in her selection, must be capable of universal application.

It may be laid down as a first principle, that we should preserve children from the knowledge of any vice or any folly, of which the idea has never yet entered their minds, and which they are not necessarily disposed to learn by early example. Children who have never lived with servants, who have never associated with ill-educated companions of their own age, and who, in their own family, have heard nothing but good conversation, and seen none but good examples, will, in their language, their manners, and their whole disposition, be not only free from many of the faults common among children, but they will absolutely have no idea that there are such faults. The language of children who have heard no language but what is good, must be correct. On the contrary, children who hear a mixture of low and high vulgarity before their own habits are fixed, must, whenever they speak, continually blunder; they have no rule to guide their judgment in their selection from the variety of dialects which they hear; probably they may often be reproved for their mistakes, but these reproofs will be of no avail while the pupils continue to be puzzled between the example of the nursery and of the drawing-room. It will cost much time and pains to correct these defects, which might have been with little difficulty prevented. It is the same with other bad habits. Falsehood, caprice, dishonesty, obstinacy, revenge, and all the train of vices which are the consequences of mistaken or neglected education, which are learned by bad example, and which are not inspired by nature, need scarcely be known to children whose minds have from their infancy been happily regulated. Such children should sedulously be kept from contagion. No books should be put into the hands of this happy class of children, but such as present the best models of virtue: there is no occasion to shock them with caricatures of vice. Such caricatures they will not even understand to be well drawn, because they are unacquainted with any thing like the originals. Examples to deter them from faults to which they have no propensity must be useless, and may be dangerous. For the same reason that a book written in bad language

should never be put into the hands of a child who speaks correctly; a book, exhibiting instances of vice, should never be given to a child who thinks and acts correctly. The love of novelty and of imitation is so strong in children, that even for the pleasure of imitating characters described in a book, or actions which strike them as singular, they often commit real faults.

To this danger of catching faults by sympathy, children of the greatest simplicity are, perhaps, the most liable, because they least understand the nature and consequences of the actions which they imitate.

During the age of imitation, children should not be exposed to the influence of any bad examples until their habits are formed, and until they have not only the sense to choose, but the fortitude to abide by, their own choice. It may be said, that "children must know that vice exists; that, even among their own companions, there are some who have bad dispositions; they cannot mix even in the society of children, without seeing examples which they ought to be prepared to avoid."

These remarks are just with regard to pupils who are intended for a public school, and no great nicety in the selection of their books is necessary; but we are now speaking of children who are to be brought up in a private family. Why should they be prepared to mix in the society of children who have bad habits or bad dispositions? Children should not be educated for the society of children; nor should they live in that society during their education. We must not expect from them premature prudence, and all the social virtues, before we have taken any measures to produce these virtues, or this tardy prudence. In private education, there is little chance that one error should balance another; the experience of the pupil is much confined; the examples which he sees are not so numerous and various as to counteract each other. Nothing, therefore, must be expected from the counteracting influence of opposing causes; nothing should be trusted to chance. Experience must preserve one uniform tenor; and examples must be selected with circumspection. The less children associate with companions of their own age, the less they know of the world; the stronger their taste for literature; the more forcible will be the impression that will be made upon them by the pictures of life, and the characters and sentiments which they meet with in

books. Books for such children ought to be *sifted* by an academy* of enlightened parents.

Without particular examples, the most obvious truths are not brought home to our business. We shall select a few examples from a work of high and deserved reputation, from a work which we much admire, "Berquin's Children's Friend." We do not mean to criticise this work as a literary production; but simply to point out to parents, that, even in the best books for children, much must still be left to the judgment of the preceptor; much in the choice of stories, and particular passages suited to different pupils.

In "The Children's Friend," there are several stories well adapted to one class of children, but entirely unfit for another. In the story called the Hobgoblin, Antonia, a little girl, "who has been told a hundred foolish stories by her maid, particularly one about a black-faced goblin," is represented as making a lamentable outcry at the sight of a chimney-sweeper; first she runs for refuge to the kitchen, the last place to which she should run; then to the pantry; thence she jumps out of the window, "half dead with terror," and, in the elegant language of the translator, *almost splits her throat with crying out Help! Help!*—In a few minutes she discovers her error, is heartily ashamed, and "ever afterward Antonia was the first to laugh at silly stories, told by silly people, of hobgoblins and the like, to frighten her."

For children who have had the misfortune to hear the hundred foolish stories of a foolish maid, this apparition of the chimney-sweeper is well managed; though, perhaps, ridicule might not effect so sudden a cure in all cases as it did in that of Antonia. By children who have not acquired terrors of the black-faced goblin, and who have not the habit of frequenting the kitchen and the pantry, this story should never be read.

"The little miss deceived by her maid," who takes her mamma's keys out of her drawers, and steals sugar and tea for her maid, that she may have the pleasure of playing with a cousin whom her mother had forbidden her to see, is not an example that need be introduced into any well-regulated family. The picture of Amelia's misery is drawn by the hand of a master.

* See Academie della Crusca.

Terror and pity, we are told by the tragic poets, purify the mind; but there are minds that do not require this species of purification. Powerful antidotes are necessary to combat powerful poisons; but where no poison has been imbibed, are not antidotes more dangerous than useful?

The stories called "The Little Gamblers, Blind Man's Buff, and Honesty the best Policy," are stories which may do a great deal of good to bad children, but they should never be given to those of another description. The young gentlemen who cheat at cards, and who pocket silver fish, should have no admittance anywhere. It is not necessary to put *children* upon their guard against associates whom they are not likely to meet; nor need we introduce The Vulgar and Mischievous Schoolboy to any but schoolboys. Martin, who throws squibs at people in the street, who fastens rabbits' tails behind their backs, who fishes for their wigs, who sticks up pins in his friends' chairs, who carries a hideous mask in his pocket to frighten little children, and who is himself frightened into repentance by a spectre with a speaking trumpet, is a very objectionable, though an excellent dramatic character. The part of the spectre is played by the groom; this is ill-contrived in a drama for children; grooms should have nothing to do with their entertainments; and Cæsar, who is represented as a pleasing character, should not be supposed to make the postillion a party in his inventions.

"*A good heart compensates for many indiscretions*," is a dangerous title for a play for young people; because *many* is an indefinite term; and in settling how many, the calculations of parents and children may vary materially. This little play is so charmingly written, the character of the imprudent and generous Frederick is so likely to excite imitation, that we must doubly regret his intimacy with the coachman, his running away from school, and drinking beer at an alehouse in a fair. The coachman is an excellent old man; he is turned away for having let master Frederick mount his box, assume the whip, and overturn a handsome carriage. Frederick, touched with gratitude and compassion, gives the old man all his pocket-money, and sells a watch and some books to buy clothes for him. The motives of Frederick's conduct are excellent; and, as they are mis-

represented by a treacherous and hypocritical cousin, we sympathize more strongly with the hero of the piece; and all his indiscretions appear, at least, amiable defects. A nice observer* of the human heart says, that we are never inclined to cure ourselves of any defect which makes us agreeable. Frederick's real virtues will not, probably, excite imitation so much as his imaginary excellences. We should take the utmost care not to associate in the mind the ideas of imprudence and of generosity; of hypocrisy and of prudence: on the contrary, it should be shown that prudence is necessary to real benevolence; that no virtue is more useful, and consequently more respectable, than justice. These homely truths will never be attended to as the countercheck moral of an interesting story; stories which require such morals, should, therefore, be avoided.

It is to be hoped, that select parts of The Children's Friend,† translated by some able hand, will be published hereafter for the use of private families. Many of the stories to which we have ventured to object, are by no means unfit for schoolboys, to whom the characters which are most exceptionable cannot be new. The vulgarity of language which we have noticed, is not to be attributed to M. Berquin, but to his wretched translator. L'Ami des Enfans is, in French, remarkably elegantly written. The Little Canary Bird, Little George, The Talkative Little Girl, The Four Seasons, and many others, are excellent both in point of style and dramatic effect; they are exactly suited to the understandings of children; and they interest without any improbable events or unnatural characters.

In fiction it is difficult to avoid giving children false ideas of virtue, and still more difficult to keep the different virtues in their due proportions. This should be attended to with care in all books for young people; nor should we sacrifice the understanding to the enthusiasm of eloquence, or the affectation of sensibility. Without the habit of reasoning, the best dispositions can give us no solid security for happiness; therefore, we should early cultivate the reasoning faculty, instead of always appealing to the imagination. By sentimental

* Marmontel. "On ne se guérit pas d'un défaut qui plait."

† We have heard that such a translation was begun.

persuasives, a child may be successfully governed for a time, but that time will be of short duration, and no power can continue the delusion long.

In the dialogue upon this maxim, "that a competence is best," the reasoning of the father is not a match for that of the son; by using less eloquence, the father might have made out his case much better. The boy sees that many people are richer than his father, and perceiving that their riches procure a great number of conveniences and comforts for them, he asks why his father, who is as good as these opulent people, should not also be as rich. His father tells him that he is rich, that he has a large garden, and a fine estate; the boy asks to see it, and his father takes him to the top of a high hill, and, showing him an extensive prospect, says to him, "All this is my estate." The boy crossquestions his father, and finds out that it is not his estate, but that he may enjoy the pleasure of looking at it; that he can buy wood when he wants it for firing; venison, without hunting the deer himself; fish, without fishing; and butter, without possessing all the cows that graze in the valley; therefore he calls himself master of the woods, the deer, the herds, the huntsmen, and the labourers that he beholds. This is* poetic philosophy, but it is not sufficiently accurate for a child; it would confound his ideas of property, and it would be immediately contradicted by his experience. The father's reasoning is perfectly good, and well adapted to his pupil's capacity, when he asks "whether he should not require a superfluous appetite to enjoy superfluous dishes at his meals." In returning from his walk, the boy sees a mill that is out of repair, a meadow that is flooded, and a quantity of hay spoiled; he observes that the owners of these things must be sadly vexed by such accidents, and his father congratulates himself upon their not being his property. Here is a direct contradiction; for a few minutes before he had asserted that they belonged to him. Property is often the cause of much anxiety to its possessor; but the question is, whether the pains or the pleasures of possessing it predominate; if this question could not be fully discussed, it should not be partially stated. To silence a child in argument is easy, to convince him is difficult; sophis-

* See Hor. 2 Epist. lib. ii.

try or wit should never be used to confound the understanding. Reason has equal force from the lips of the giant and of the dwarf.

These minute criticisms may appear invidious, but it is hoped that they will be considered only as illustrations of general principles; illustrations necessary to our subject. We have chosen M. Berquin's work because of its universal popularity; probably all the examples which have been selected are in the recollection of most readers, or at least it is easy to refer to them, because The Children's Friend is to be found in every house where there are any children. The principles by which we have examined Berquin, may be applied to all books of the same class. Sandford and Merton, Madame de Silleri's Theatre of Education, and her Tales of the Castle, Madame de la Fite's Tales and Conversations, Mrs. Smith's Rural Walks, with a long list of other books for children, which have considerable merit, would deserve a separate analysis if literary criticism were our object. A critic once, with indefatigable illnature, picked out all the faults of a beautiful poem, and presented them to Apollo. The god ordered a bushel of his best Parnassian wheat to be carefully winnowed, and he presented the critic with the chaff. Our wish is to separate the small portion of what is useless, from the excellent nutriment contained in the books we have mentioned.

With respect to sentimental stories,* and books of mere entertainment, we must remark, that they should be sparingly used, especially in the education of girls. This species of reading cultivates what is called the heart prematurely; lowers the tone of the mind, and induces indifference for those common pleasures and occupations which, however trivial in themselves, constitute by far the greatest portion of our daily happiness. Stories are the novels of childhood. We know, from common experience, the effects which are produced upon the female mind by immoderate novel-reading. To those who acquire this taste, every object becomes disgusting which is not in an attitude for poetic painting; a species of moral picturesque is sought for in every scene of life, and this is not always compatible with sound sense or with simple reality. Gainsborough's

* See Sympathy and Sensibility.

Country Girl, as it has been humorously* remarked, "is a much more picturesque object than a girl neatly dressed in a clean white frock; but for this reason, are all children to go in rags?" A tragedy heroine, weeping, swooning, dying, is a moral picturesque object; but the frantic passions, which have the best effect upon the stage, might, when exhibited in domestic life, appear to be drawn upon too large a scale to please. The difference between reality and fiction is so great, that those who copy from any thing but nature are continually disposed to make mistakes in their conduct, which appear ludicrous to the impartial spectator. Pathos depends on such nice circumstances, that domestic, sentimental distresses, are in a perilous situation; the sympathy of their audience is not always in the power of the fair performers. Phrensy itself may be turned to farce.† "Enter the princess mad in white satin, and her attendant mad in white linen."

Besides the danger of creating a romantic taste, there is reason to believe, that the species of reading to which we object has an effect directly opposite to what it is intended to produce. It diminishes, instead of increasing, the sensibility of the heart; a combination of romantic imagery is requisite to act upon the associations of sentimental people, and they are virtuous only when virtue is in perfectly good taste. An eloquent philosopher‡ observes, that in the description of scenes of distress in romance and poetry, the distress is always made *elegant;* the imagination which has been accustomed to this delicacy in fictitious narrations, revolts from the disgusting circumstances which attend real poverty, disease, and misery; the emotions of pity, and the exertions of benevolence, are consequently repressed precisely at the time when they are necessary to humanity.

With respect to pity, it is a spontaneous, natural emotion, which is strongly felt by children, but they cannot properly be said to feel benevolence till they are capable of reasoning. Charity must, in them, be a very doubtful virtue; they cannot be competent judges as to the general utility of what they give. Persons of the

* See a letter of Mr. Wyndham's to Mr. Repton, in Repton, on Landscape Gardening.

† The Critic. ‡ Professor Stewart.

most enlarged understanding, find it necessary to be extremely cautious in charitable donations, lest they should do more harm than good. Children cannot see beyond the first link in the chain which holds society together; at the best, then, their charity can be but a partial virtue. But in fact, children have nothing to give; they think that they give, when they dispose of the property of their parents; they suffer no privation from this sort of generosity, and they learn ostentation, instead of practising self-denial. Berquin, in his excellent story of "The Little Needle Woman," has made the children give their own work; here the pleasure of employment is immediately connected with the gratification of benevolent feelings; their pity is not merely passive, it is active and useful.

In fictitious narratives, affection for parents, and for brothers and sisters, is often painted in agreeable colours, to excite the admiration and sympathy of children. Caroline, the charming little girl who gets upon a chair to wipe away the tears that trickle down her eldest sister's cheek when her mother is displeased with her,* forms a natural and beautiful picture; but the desire to imitate Caroline must produce affectation. All the simplicity of youth is gone, the moment children perceive that they are extolled for the expression of fine feelings and fine sentiments. Gratitude, esteem, and affection, do not depend upon the table of consanguinity; they are involuntary feelings, which cannot be raised at pleasure by the voice of authority; they will not obey the dictates of interest; they secretly despise the anathemas of sentiment. Esteem and affection are the necessary consequences of a certain course of conduct, combined with certain external circumstances, which are, more or less, in the power of every individual. To arrange these circumstances prudently, and to pursue a proper course of conduct steadily, something more is necessary than the transitory impulse of sensibility or of enthusiasm.

There is a class of books which amuse the imagination of children without acting upon their feelings. We do not allude to fairy tales, for we apprehend that these are not now much read; but we mean voyages and travels; these interest young people universally. Robinson Crusoe, Gulliver, and the Three Russian Sailors,

* Berquin.

who were cast away upon the coast of Norway, are general favourites. No child ever read an account of a shipwreck, or even a storm, without pleasure. A desert island is a delightful place, to be equalled only by the skating land of the raindeer, or by the valley of diamonds in the Arabian Tales. Savages, especially if they be cannibals, are sure to be admired; and the more hair-breadth escapes the hero of the tale has survived, and the more marvellous his adventures, the more sympathy he excites.*

Will it be thought to proceed from a spirit of contradiction if we remark, that this species of reading should not early be chosen for boys of an enterprising temper, unless they are intended for a seafaring life, or for the army? The taste for adventure is absolutely incompatible with the sober perseverance necessary to success in any other liberal professions. To girls, this species of reading cannot be as dangerous as it is to boys; girls must very soon perceive the impossibility of their rambling about the world in quest of adventures; and where there appears an obvious impossibility of gratifying any wish, it is not likely to become, or at least to continue, a torment to the imagination. Boys, on the contrary, from the habits of their education, are prone to admire and to imitate every thing like enterprise and heroism. Courage and fortitude are the virtues of men, and it is natural that boys should desire, if they believe that they possess these virtues, to be placed in those great and extraordinary situations which can display them to advantage. The taste for adventure is not repressed in boys by the impossibility of its indulgence; the world is before them, and they think that fame promises the highest prize to those who will most boldly venture in the lottery of fortune. The rational probability of success, few young people are able, fewer still are willing, to calculate; and the calculations of prudent friends have little power over their understandings, or, at least, over their imagination, the part of the understanding which is most likely to decide their conduct.—From general maxims, we cannot expect that young people should learn much prudence; each individual admits the propriety of the rule, yet believes himself to be a privileged exception. Where any prize

* See Sympathy and Sensibility.

is supposed to be in the gift of fortune, every man, or every young man, takes it for granted that he is a favourite, and that it will be bestowed upon him. The profits of commerce and of agriculture, the profits of every art and profession, can be estimated with tolerable accuracy; the value of activity, application, and abilities, can be respectively measured by some certain standard. Modest, or even prudent people, will scruple to rate themselves in all of these qualifications superior to their neighbours; but every man will allow that, in point of good fortune, at any game of chance, he thinks himself upon a fair level with every other competitor.

When a young man deliberates upon what course of life he shall follow, the patient drudgery of a trade, the laborious mental exertions requisite to prepare him for a profession, must appear to him in a formidable light, compared with the alluring prospects presented by an adventuring imagination. At this time of life, it will be too late suddenly to change the taste; it will be inconvenient, if not injurious, to restrain a young man's inclinations by force or authority; it will be imprudent, perhaps fatally imprudent, to leave them uncontrolled. Precautions should therefore be taken long before this period, and the earlier they are taken the better. It is not idle refinement to assert, that the first impressions which are made upon the imagination, though they may be changed by subsequent circumstances, yet are discernible in every change, and are seldom entirely effaced from the mind, though it may be difficult to trace them through all their various appearances. A boy who at seven years old longs to be Robinson Crusoe, or Sinbad the sailor, may, at seventeen, retain the same taste for adventure and enterprise, though mixed, so as to be less discernible, with the incipient passions of avarice and ambition; he has the same dispositions modified by a slight knowledge of real life, and guided by the manners and conversation of his friends and acquaintance. Robinson Crusoe and Sinbad will no longer be his favourite heroes; but he will now admire the soldier of fortune, the commercial adventurer, or the nabob, who has discovered in the east the secret of Aladdin's wonderful lamp; and who has realized the treasures of Aboulcasem.

The history of realities, written in an entertaining

manner, appears not only better suited to the purposes of education, but also more agreeable to young people, than improbable fictions. We have seen the reasons why it is dangerous to pamper the taste early with mere books of entertainment; to voyages and travels we have made some objections. Natural history is a study particularly suited to children: it cultivates their talents for observation, applies to objects within their reach, and to objects which are every day interesting to them. The histories of the bee, the ant, the caterpillar, the butterfly, the silkworm, are the first things that please the taste of children, and these are the histories of realities.

Among books of mere entertainment, no one can be so injudicious, or so unjust, as to class the excellent "Evenings at Home." Upon a close examination, it appears to be one of the best books for young people from seven to ten years old, that has yet appeared. We shall not pretend to enter into a minute examination of it; because, from what we have already said, parents can infer our sentiments, and we wish to avoid tedious, unnecessary detail. We shall, however, just observe, that the lessons on natural history, on metals, and on chymistry, are particularly useful; not so much from the quantity of knowledge which they contain, as by the agreeable manner in which it is communicated: the mind is opened to extensive views, at the same time that nothing above the comprehension of children is introduced. The mixture of moral and scientific lessons is happily managed, so as to relieve the attention; some of the moral lessons contain sound argument, and some display just views of life. "Perseverance against Fortune;" "The Price of Victory;" "Eyes and no Eyes," have been generally admired as much by parents as by children.

There is a little book called "Leisure Hours," which contains a great deal of knowledge suited to young people; but they must observe, that the style is not elegant; perhaps, in a future edition, the style may be revised. The "Conversations d'Emile" are elegantly written, and the character of the mother and child admirably well preserved. White of Selborne's Naturalist's Calendar, we can recommend with entire approbation: it is written in a familiar, yet elegant style; and the journal form gives it that air of reality which is so

agreeable and interesting to the mind. Mr. White will make those who have observed, observe the more, and will excite the spirit of observation in those who never before observed.

Smellie's Natural History is a useful, entertaining book; but it *must* be carefully looked over, and many pages and half pages must be entirely sacrificed. And here one general caution may be necessary. It is hazarding too much to make children promise not to read parts of any book which is put into their hands; when the book is too valuable, in a parent's estimation, to be cut or blotted, let it not be given to children when they are alone; in a parent's presence there is no danger, and the children will acquire the habit of reading the passages that are selected without feeling curiosity about the rest. As young people grow up, they will judge of the selections that have been made for them; they will perceive why such a passage was fit for their understanding at one period, which they could not have understood at another. If they are never forced to read what is tiresome, they will anxiously desire to have passages selected for them; and they will not imagine that their parents are capricious in these selections; but they will, we speak from experience, be sincerely grateful to them for the time and trouble bestowed in procuring their literary amusements.

When young people have established their character for truth and exact integrity, they should be entirely trusted with books as with every thing else. A slight pencil line at the side of a page will then be all that is necessary to guide them to the best parts of any book. Suspicion would be as injurious as too easy a faith is imprudent: confidence confirms integrity; but the habits of truth must be formed before dangerous temptations are presented. We intended to give a list of books, and to name the pages in several authors, which have been found interesting to children from seven to nine or ten years old. The Reviews; The Annual Registers; Enfield's Speaker; *Elegant Extracts;* The papers of the Manchester Society; The French Academy of Sciences; Priestley's History of Vision; and parts of the Works of Franklin, of Chaptal, Lavoisier, and Darwin, have supplied us with our best materials. Some periodical papers from the World, Rambler, Guardian, and Adventurer, have been chosen: these

are books with which all libraries are furnished. But we forbear to offer any list; the passages we should have mentioned have been found to please in one family; but we are sensible, that as circumstances vary, the choice of books for different families ought to be different. Every parent must be capable of selecting those passages in books which are most suited to the age, temper, and taste of their children. Much of the success, both of literary and moral education, will depend upon our seizing the happy moments for instruction; moments when knowledge immediately applies to what children are intent upon themselves; the step which is to be taken by the understanding, should immediately follow that which has already been secured. By watching the turn of mind, and by attending to the conversation of children, we may perceive exactly what will suit them in books; and we may preserve the connexion of their ideas without fatiguing their attention. A paragraph read aloud from the newspaper of the day, a passage from any book which parents happen to be reading themselves, will catch the attention of the young people in a family, and will, perhaps, excite more taste and more curiosity, than could be given by whole volumes read at times when the mind is indolent or intent upon other occupations.

The custom of reading aloud for a great while together is extremely fatiguing to children, and hurtful to their understandings; they learn to read on without the slightest attention or thought; the more fluently they read, the worse it is for them; for their preceptors, while words and sentences are pronounced with tolerable emphasis, never seem to suspect that the reader can be tired, or that his mind may be absent from his book. The monotonous tones which are acquired by children who read a great deal aloud, are extremely disagreeable, and the habit cannot easily be broken: we may observe, that children who have not acquired bad customs, always read as they speak, when they understand what they read; but the moment when they come to any sentence which they do not comprehend, their voice alters, and they read with hesitation, or with false emphasis: to these signals a preceptor should always attend, and the passage should be explained before the pupil is taught to read it in a musical tone, or with the proper emphasis: thus children should be taught to read

by the understanding, and not merely by the ear. Dialogues, dramas, and well-written narratives, they always read *well*, and these should be their exercises in the art of reading: they should be allowed to put down the book as soon as they are tired; but an attentive tutor will perceive when they ought to be stopped, *before* the utmost point of fatigue. We have heard a boy of nine years old, who had never been taught elocution by any reading-master, read simple pathetic passages, and natural dialogues, in "Evenings at Home," in a manner which would have made even Sterne's critic forget his stop-watch.

By reading much at a time, it is true that a great number of books are run through in a few years; but this is not at all our object; on the contrary, our greatest difficulty has been to find a sufficient number of books fit for children to read. If they early acquire a strong taste for literature, no matter how few authors they may have perused. We have often heard young people exclaim, "I'm glad I have not read such a book —I have a great pleasure to come!"—Is not this better than to see a child yawn over a work, and count the number of tiresome pages, while he says, "I shall have got through this book by-and-by; and what must I read when I have done this? I believe I never shall have read all I am to read! What a number of tiresome books there are in the world! I wonder what can be the reason that I must read them all? If I were but allowed to skip the pages that I don't understand, I should be much happier; for when I come to any thing entertaining in a book, I can keep myself awake, and then I like reading as well as anybody does."

Far from forbidding to skip the incomprehensible pages, or to close the tiresome volume, we should exhort our pupils never to read one single page that tires, or that they do not fully understand. We need not fear, that, because an excellent book is not interesting at one period of education, it should not become interesting at another; the child is always the best judge of what is suited to his present capacity. If he says, "Such a book tires me," the preceptor should never answer with a forbidding, reproachful look, "I am surprised at that, it is no great proof of your taste; the book which you say tires you, is written by one of the best authors in the English language." The boy is sorry for it, but he

cannot help it; and he concludes, if he be of a timid temper, that he has no taste for literature, since the best authors in the English language tire him. It is in vain to tell him that the book is "universally allowed to be very entertaining"—

> 'If it be not such to me,
> What care I how fine it be!"

The more encouraging and more judicious parent would answer upon a similar occasion, "You are very right not to read what tires you, my dear; and I am glad that you have sense enough to tell me that this book does not entertain you, though it is written by one of the best authors in the English language. We do not think at all the worse of your taste and understanding; we know that the day will come when this book will probably entertain you; put it by until then, I advise you."

It may be thought, that young people who read only those parts of books which are entertaining, or those which are selected for them, are in danger of learning a taste for variety, and desultory habits, which may prevent their acquiring accurate knowledge upon any subject, and which may render them incapable of that literary application, without which nothing can be well learned. We hope the candid preceptor will suspend his judgment, until we can explain our sentiments upon this subject more fully, when we examine the nature of invention and memory.*

The secret fear that stimulates parents to compel their children to constant application to certain books, arises from the opinion, that much chronological and historical knowledge must at all events be acquired during a certain number of years. The knowledge of history is thought a necessary accomplishment in one sex, and an essential part of education in the other. We ought, however, to distinguish between that knowledge of history and of chronology which is really useful, and that which is acquired merely for parade. We must call that useful knowledge which enlarges the view of human life and of human nature, which teaches by the experience of the past what we may expect in future. To study

* Chapter on Invention and Memory.

history as it relates to these objects, the pupil must have acquired much previous knowledge; the habit of reasoning, and the power of combining distant analogies. The works of Hume, of Robertson, Gibbon, or Voltaire, can be properly understood only by well-informed and highly cultivated understandings. Enlarged views of policy, some knowledge of the interests of commerce, of the progress and state of civilization and literature in different countries, are necessary to any one who studies these authors with real advantage. Without these, the finest sense and the finest writing must be utterly thrown away upon the reader. Children, consequently, under the name of fashionable histories, often read what to them is absolute nonsense: they have very little motive for the study of history, and all that we can say to keep alive their interest, amounts to the common argument, "that such information will be useful to them hereafter, when they hear history mentioned in conversation."

Some people imagine that the memory resembles a storehouse, in which we should early lay up facts; and they assert that, however useless these may appear at the time when they are laid up, they will afterward be ready for service at our summons. One comparison may be fairly answered by another, since it is impossible to oppose comparison by reasoning. In accumulating facts, as in amassing riches, people often begin by believing that they value wealth only for the use they shall make of it; but it often happens, that during the course of their labours they learn habitually to set a value upon the coin itself, and they grow avaricious of that which they are sensible has little intrinsic value. Young people who have accumulated a vast number of facts, and names, and dates, perhaps intended originally to make some good use of their treasure; but they frequently forget their laudable intentions, and conclude by contenting themselves with the display of their nominal wealth. Pedants and misers forget the real use of wealth and knowledge, and they accumulate, without rendering what they acquire useful to themselves or to others.

A number of facts are often stored in the mind which lie there useless, because they cannot be found at the moment when they are wanted. It is not sufficient, therefore, in education, to store up knowledge; it is

essential to arrange facts so that they shall be ready for use, as materials for the imagination, or the judgment, to select and combine. The power of retentive memory is exercised too much, the faculty of recollective memory is exercised too little, by the common modes of education. While children are reading the history of kings, and battles, and victories—while they are learning tables of chronology and lessons of geography by rote, their inventive and their reasoning faculties are absolutely passive; nor are any of the facts which they learn in this manner associated with circumstances in real life. These trains of ideas may with much pains and labour be fixed in the memory, but they must be recalled precisely in the order in which they were learned by rote, and this is not the order in which they may be wanted: they will be conjured up in technical succession or in troublesome multitudes. Many people are obliged to repeat the alphabet before they can recollect the relative place of any given letter; others repeat a column of the multiplication table before they can recollect the given sum of the number they want. There is a common rigmarole for telling the number of days in each month in the year; those who have learned it by heart usually repeat the whole of it before they can recollect the place of the month which they want; and sometimes in running over the lines, people miss the very month which they are thinking of, or repeat its name without perceiving that they have named it. In the same manner, those who have learned historical or chronological facts in a technical mode, must go through the whole train of their rigmarole associations before they can hit upon the idea which they want. Lord Bolingbroke mentions an acquaintance of his, who had an amazing collection of facts in his memory, but unfortunately he could never produce one of them in the proper moment; he was always obliged to go back to some fixed landing-place, from which he was accustomed to take his flight. Lord Bolingbroke used to be afraid of asking him a question, because when once he began, he went off like a larum, and could not be stopped; he poured out a profusion of things which had nothing to do with the point in question; and it was ten to one but he omitted the only circumstance that would have been really serviceable. Many people who have tenacious memories, and who have been ill educated, find

themselves in a similar condition, with much knowledge baled up, an encumbrance to themselves and to their friends. The great difference which appears in men of the same profession, and in the same circumstances, depends upon the application of their knowledge more than upon the quantity of their learning.

With respect to a knowledge of history and chronologic learning, everybody is now nearly upon a level; this species of information cannot be a great distinction to any one: a display of such common knowledge is considered by literary people, and by men of genius especially, as ridiculous and offensive. One motive, therefore, for loading the minds of children with historic dates and facts, is likely, even from its having universally operated, to cease to operate in future. Without making it a laborious task to young people, it is easy to give them such a knowledge of history as will preserve them from the shame of ignorance, and put them upon a footing with men of good sense in society, though not, perhaps, with men who have studied history for the purpose of shining in conversation. For our purpose, it is not necessary early to study voluminous philosophic histories; these should be preserved for a more advanced period of their education. The first thing to be done is to seize the moment when curiosity is excited by the accidental mention of any historic name or event. When a child hears his father talk of the Roman emperors, or of the Roman people, he naturally inquires who these people were; some short explanation may be given, so as to leave curiosity yet unsatisfied. The prints of the Roman emperors' heads, and Mrs. Trimmer's prints of the remarkable events in the Roman and English history, will entertain children. Madame de Silleri, in her Adela and Theodore, describes historical hangings, which she found advantageous to her pupils. In a prince's palace, or a nobleman's palace, such hangings would be suitable decorations,—or in a public seminary of education it would be worth while to prepare them: private families would, perhaps, be alarmed at the idea of expense, and at the idea that their houses could not readily be furnished in proper time for the instruction of children. As we know the effect of such apprehensions of difficulty, we forbear from insisting upon historical hangings, especially as we think that children should not, by any great apparatus for teaching

them history, be induced to set an exorbitant value upon this sort of knowledge, and should hence be excited to cultivate their memories without reasoning or reflecting. If any expedients are thought necessary to fix historic facts early in the mind, the entertaining display of Roman emperors and British kings and queens may be made, as Madame de Silleri recommends, in a magic lantern, or by the *Ombres Chinoises*. When these are exhibited, there should be some care taken not to introduce any false ideas. Parents should be present at the spectacle, and should answer each eager question with prudence. "Ha! here comes Queen Elizabeth!" exclaims the child; "was she a good woman?" A foolish show-man would answer, "Yes, master, she was the greatest queen that ever sat upon the English throne!" A sensible mother would reply, "My dear, I cannot answer that question; you will read her history yourself, —you will judge by her actions whether she was or was not a good woman." Children are often extremely impatient to settle the precise merit and demerit of every historical personage with whose names they become acquainted; but this impatience should not be gratified by the short method of referring to the characters given of these persons in any common historical abridgment. We should advise all such characters to be omitted in books for children; let those who read form a judgment for themselves; this will do more service to the understanding than can be done by learning by rote the opinion of any historian. The good and bad qualities, the decisive, yet contradictory epithets, are so jumbled together in these characters, that no distinct notion can be left in the reader's mind: and the same words recur so frequently in the characters of different kings, that they are read over in a monotonous voice, as mere concluding sentences, which come, of course, at the end of every reign. "King Henry the Fifth was tall and slender, with a long neck, engaging aspect, and limbs of the most elegant turn. * * * * * * His valour was such as no danger could startle, and no difficulty could oppose. He managed the dissensions among his enemies with such address as spoke him consummate in the arts of the cabinet. He was chaste, temperate, modest, and devout; scrupulously just in his administration, and severely exact in the discipline of his army, upon which he knew his glory and success in a great measure

depended. In a word, it must be owned that he was without an equal in the arts of war, policy, and government. His great qualities were, however, somewhat obscured by his ambition, and his natural propensity to cruelty."

Is it possible that a child of seven or eight years old can acquire any distinct, or any just ideas, from the perusal of this character of Henry the Fifth? Yet it is selected as one of the best drawn characters from a little abridgment of the history of England, which is, in general, as well done as any we have seen. Even the least exceptionable historic abridgments require the corrections of a patient parent. In abridgments for children, the facts are usually interspersed with what the authors intend for moral reflections, and easy explanations of political events, which are meant to be suited to *the meanest capacities*. These reflections and explanations do much harm; they instil prejudice, and they accustom the young, unsuspicious reader, to swallow absurd reasoning, merely because it is often presented to him. If no history can be found entirely free from these defects, and if it be even impossible to correct any completely, without writing the whole over again, yet much may be done by those who hear children read. Explanations can be given at the moment when the difficulties occur. When the young reader pauses to think, allow him to think, and suffer him to question the assertions which he meets with in books with freedom, and that minute accuracy which is only tiresome to those who cannot reason. The simple morality of childhood is continually puzzled and shocked at the representation of the crimes and the virtues of historic heroes. History, when divested of the graces of eloquence, and of that veil which the imagination is taught to throw over antiquity, presents a disgusting, terrible list of crimes and calamities: murders, assassinations, battles, revolutions, are the memorable events of history. The love of glory atones for military barbarity; treachery and fraud are frequently dignified with the names of prudence and policy; and the historian, desirous to appear moral and sentimental, yet compelled to produce facts, makes out an inconsistent, ambiguous system of morality. A judicious and honest preceptor will not, however, imitate the false tenderness of the historian for the dead; he will rather consider what is most advan-

tageous to the living ; he will perceive that it is of more consequence that his pupils should have distinct notions of right and wrong, than that they should have perfectly by rote all the Grecian, Roman, English, French, all the fifty volumes of the Universal History. A preceptor will not surely attempt, by any sophistry, to justify the crimes which sometimes obtain the name of heroism ; when his ingenuous, indignant pupil verifies the astonishing numeration of the hundreds and thousands that were put to death by a conqueror, or that fell in one battle, he will allow this astonishment and indignation to be just, and he will rejoice that it is strongly felt and expressed.

Besides the false characters which are sometimes drawn of individuals in history, national characters are often decidedly given in a few epithets, which prejudice the mind and convey no real information. Can a child learn any thing but national prepossession from reading, in a character of the English nation, that "boys, before they can speak, discover that they know the proper guards in boxing with their fists, a quality that, perhaps, is peculiar to the English, and is seconded by a strength of arm that few other people can exert? *This* gives their soldiers an infinite superiority in all battles that are to be decided by the bayonet screwed upon the musket."* Why should children be told that the Italians are *naturally* revengeful ; the French *naturally* vain and perfidious, "excessively credulous and litigious ;" that the Spaniards are *naturally* jealous and haughty ?† The patriotism of an enlarged and generous mind cannot, surely, depend upon the early contempt inspired for foreign nations.—We do not speak of the education necessary for naval and military men—with this we have nothing to do ; but surely it cannot be necessary to teach national prejudices to any other class of young men. If these prejudices are ridiculed by sensible parents, children will not be misled by partial authors ; general assertions will be of little consequence to those who are taught to reason ; they will not be overawed by nonsense wherever they may meet with it.

The words whig and tory occur frequently in English history, and liberty and tyranny are talked of—the

* Guthrie's Geographical, Historical, and Commercial Grammar page 186. † Guthrie, page 398.

influence of the crown—the rights of the people. What are children of eight or nine years old to understand by these expressions? and how can a tutor explain them without inspiring political prejudices? We do not mean here to enter into any political discussion; we think that children should not be taught the principles of their preceptors, whatever they may be; they should judge for themselves; and, until they are able to judge, all discussion, all explanations, should be scrupulously avoided. While they are children, the plainest chronicles are for them the best histories, because they express no political tenets and dogmas. When our pupils grow up, at whatever age they may be capable of understanding them, the best authors who have written on each side of the question, the best works, without any party considerations, should be put into their hands; and let them form their own opinions from facts and arguments, uninfluenced by passion, and uncontrolled by authority.

As young people increase their collection of historic facts, some arrangement will be necessary to preserve these in proper order in the memory. Priestley's Biographical Chart is an extremely ingenious contrivance for this purpose; it should hang up in the room where children read, or rather where they live; for we hope no room will ever be dismally consecrated to their studies. Whenever they hear any celebrated name mentioned, or when they meet with any in books, they will run to search for these names in the biographical chart; and those who are used to children will perceive, that the pleasure of this search, and the joy of the discovery, will fix biography and chronology easily in their memories. Mortimer's Student's Dictionary, and Brooke's Gazetteer, should, in a library or room which children usually inhabit, be always within the reach of children. If they are always consulted at the very moment they are wanted, much may be learned from them; but if there be any difficulty in getting at these dictionaries, children forget, and lose all interest in the things which they wanted to know. But if knowledge becomes immediately useful or entertaining to them, there is no danger of their forgetting. Who ever forgets Shakspeare's historical plays? The arrangements contrived and executed by others do not always fix things so firmly in our remembrance as those which

we have had some share in contriving and executing ourselves.

One of our pupils has drawn out a biographical chart upon the plan of Priestley's, inserting such names only as he was well acquainted with; he found that in drawing out this chart, a great portion of general history and biography was fixed in his memory. Charts, in the form of Priestley's, but without the names of the heroes, &c. being inserted, would, perhaps, be useful for schools and private families.

There are two French historical works which we wish were well translated for the advantage of those who do not understand French. The Chevalier Meheghan's Tableau de l'Histoire Moderne, which is sensibly divided into epochs; and Condillac's View of Universal History, comprised in five volumes, in his "Cours d'Etude pour l'Instruction du Prince de Parma." This history carries on, along with the records of wars and revolutions, the history of the progress of the human mind, of arts, and sciences; the view of the different governments of Europe is full and concise; no prejudices are instilled, yet the manly and rational eloquence of virtue gives life and spirit to the work. The concluding address, from the preceptor to his royal pupil, is written with all the enlightened energy of a man of truth and genius. We do not recommend Condillac's history as an elementary work; for this it is by no means fit; but it is one of the best histories that a young man of fifteen or sixteen can read.

It is scarcely possible to conceive, that several treatises on grammar, the art of reasoning, thinking, and writing, which are contained in M. Condillac's course of study, were designed by him for elementary books, for the instruction of a child from seven to ten years old. It appears the more surprising that the abbé should have so far mistaken the capacity of childhood, because, in his judicious preface, he seems fully sensible of the danger of premature cultivation, and of the absurdity of substituting a knowledge of words for a knowledge of things. As M. Condillac's is a work of high reputation, we may be allowed to make a few remarks on its practical utility; and this may, perhaps, afford us an opportunity of explaining our ideas upon the use of metaphysical, poetical, and critical works, in early education. We do not mean any invidious criticism upon

Condillac, but in "Practical Education" we wish to take our examples and illustrations from real life. The abbé's course of study, for a boy of seven years old, begins with metaphysics. In his preface he asserts, that the arts of speaking, reasoning, and writing, differ from one another only in degrees of accuracy, and in the more or less perfect connexion of ideas. He observes, that attention to the manner in which we acquire and in which we arrange our knowledge, is equally necessary to those who would learn and to those who would teach, with success. These remarks are just; but does not he draw an erroneous conclusion from his own principles, when he infers, that the first lessons which we should teach a child ought to be metaphysical? He has given us an abstract of those which he calls preliminary lessons, on the operations of the soul, on attention, judgment, imagination, &c.—he adds, that he thought it useless to give to the public the conversations and explanations which he had with his pupil on these subjects. Both parents and children must regret the suppression of these explanatory notes; as the lessons appear at present, no child of seven years old can understand, and few preceptors can or will make them what they ought to be. In the first lesson on the different species of ideas, the abbé says,

"The idea, for instance, which I have of Peter, is singular, or individual; and as the idea of man is general relatively to the ideas of a nobleman and a citizen, it is particular as it relates to the idea of animal."*

"Relatively to the ideas of a nobleman and a citizen." What a long explanation upon these words there must have been between the abbé and the prince! The whole view of society must have been opened at once, or the prince must have swallowed prejudices and metaphysics together. To make these things familiar to a child, Condillac says that we must bring a few or many examples; but where shall we find examples? Where shall we find proper words to express to a child ideas of political relations mingled with metaphysical subtleties?

Through this whole chapter on particular and general ideas, the abbé is secretly intent upon a dispute be-

*"L'idée, par exemple, que j'ai de Pierre, est singulière ou individuelle, et comme l'idée d'homme est générale par rapport aux idées de noble et de roturier, elle est particulière par rapport à l'idée d'animal."—Leçons Préliminaires, vol. i. p. 43.

gun or revived in the thirteenth century, and not yet finished, between the Nominalists and the Realists; but a child knows nothing of this.

In the article "On the Power of Thinking," an article which he acknowledges to be a little difficult, he observes, that the great point is to make the child comprehend what is meant by attention; "for as soon as he understands that, all the rest," he assures us, "will be easy." Is it then of less consequence that the child should learn the habit of attention, than that he should learn the meaning of the word! Granting, however, that the definition of this word is of consequence, that definition should be made proportionably clear. The tutor, at least, must understand it, before he can hope to explain it to his pupil. Here it is:

"* * * when among many sensations which you experience at the same time, *the direction of the organs* makes you take notice of one, so that you do not observe the others any longer, this sensation becomes what we call *attention*.*

This is not accurate; it is not clear whether the direction of the organs be the cause or the effect of attention; or whether it be only a concomitant of the sensation. Attention, we know, can be exercised upon abstract ideas; for this objection M. Condillac has afterward a provisional clause, but the original definition remains defective, because the direction of the organs is not, though it be stated as such, essential; besides, we are told only, that the sensation described becomes (*devient*) what we call attention. What attention actually is, we are still left to discover. The matter is made yet more difficult; for when we are just fixed in the belief that attention depends "upon our remarking one sensation, and not remarking others which we may have at the same time," we are in the next chapter given to understand, that "in comparison we may have *a double attention, or two attentions*, which are only two sensations, which make themselves be taken notice of equally; and consequently comparison consists only of sensations."†

* Ainsi lorsque, de plusiers sensations qui se font en même temps sur vous, la direction des organs vous en fait remarquer une, de maniére que vous ne remarquez plus les autres, cette sensation devient ce que nous appellons *attention*."—Leçons Préliminaires, p. 46.

† "La Comparaison n'est donc qu'une double attention. Nous ve-

The doctrine of simultaneous ideas here glides in, and we concede unawares all that is necessary to the abbé's favourite system, "that sensation becomes successively attention, memory, comparison, judgment, and reflection;* and that the art of reasoning is reducible to a series of identic propositions." Without, at present, attempting to examine this system, we may observe, that in education it is more necessary to preserve the mind from prejudice, than to prepare it for the adoption of any system. Those who have attended to metaphysical proceedings know, that if a few apparently trifling concessions be made in the beginning of the business, a man of ingenuity may force us, in the end, to acknowledge whatever he pleases. It is impossible that a child can foresee these consequences, nor is it probable that he should have paid such accurate attention to the operations of his own mind, as to be able to detect the fallacy, or to feel the truth, of his tutor's assertions. A metaphysical catechism may readily be taught to children; they may learn to answer almost as readily as Trenck answered in his sleep to the guards who regularly called to him every night at midnight. Children may answer expertly to the questions, "What is attention? What is memory? What is imagination? What is the difference between wit and judgment? How many sorts of ideas have you, and which are they?" But when they are perfect in their responses to all these questions, how much are they advanced in real knowledge?

Allegory has mixed with metaphysics almost as much as with poetry; personifications of memory and imagination are familiar to us; to each have been addressed odes and sonnets, so that we almost believe in their individual existence, or at least we are become jealous of the separate attributes of these ideal beings. This metaphysical mythology may be ingenious and elegant, but it is better adapted to the pleasures of poetry than to the purposes of reasoning. Those who have been accustomed to respect and believe in it, will find it difficult soberly to examine any argument upon abstract

nons de voir que l'attention n'est qu'une sensation qui se fait remarquer. Deux attentions ne sont donc que deux sensations remarquer également; et par conséquence il n'y a dans la comparaison que des sensations."—Leçons Préliminaires, p. 47.

* See Art de Penser, p. 324.

subjects; their favourite prejudices will retard them, when they attempt to advance in the art of reasoning. All accurate metaphysical reasoners have perceived and deplored the difficulties which the prepossessions of education have thrown in their way; and they have been obliged to waste their time and powers in fruitless attempts to vanquish these in their own minds, or in those of their readers. Can we wish in education to perpetuate similar errors, and to transmit to another generation the same artificial imbecility? Or can we avoid these evils, if with our present habits of thinking and speaking, we attempt to teach metaphysics to children of seven years old?

A well-educated, intelligent young man, accustomed to accurate reasoning, yet brought up without any metaphysical prejudices, would be a treasure to a metaphysician to cross-examine: he would be eager to hear the unprejudiced youth's evidence, as the monarch, who had ordered a child to be shut up, without hearing one word of any human language, from infancy to manhood, was impatient to hear what would be the first word that he uttered. But though we wish extremely well to the experiments of metaphysicians, we are more intent upon the advantage which our unprejudiced pupils would themselves derive from their judicious education: probably they would, coming fresh to the subject, make some discoveries in the science of metaphysics: they would have no paces* to show; perhaps they might advance a step or two on this difficult ground.

When we object to the early initiation of novices into metaphysical mysteries, we only recommend it to preceptors not to teach; let pupils learn whatever they please, or whatever they can, without reading any metaphysical books, and without hearing any opinions, or learning any definitions by rote; children may reflect upon their own feelings, and they should be encouraged to make accurate observations upon their own minds. Sensible children will soon, for instance, observe the effect of habit, which enables them to repeat actions with ease and facility, which they have frequently performed. The association of ideas, as it assists them to remember particular things, will soon be noticed, though not, perhaps, in scientific words. The use of the asso-

* See Dunciad.

ciation of pain or pleasure, in the form of what we call reward and punishment, may probably be early perceived. Children will be delighted with these discoveries if they are suffered to make them, and they will apply this knowledge in their own education. Trifling daily events will recall their observations, and experience will confirm or correct their juvenile theories. But if metaphysical books or dogmas are forced upon children in the form of lessons, they will, as such, be learned by rote, and forgotten.

To prevent parents from expecting as much as the Abbé Condillac does from the comprehension of pupils of six or seven years old upon abstract subjects, and to enable preceptors to form some idea of the perfect simplicity in which children, unprejudiced upon metaphysical questions, would express themselves, we give the following little dialogues, word for word, as they passed:

1780. *Father.* Where do you think?

A——. (Six and a half years old.) In my mouth.

Ho——. (Five years and a half old.) In my stomach.

Father. Where do you feel that you are glad or sorry?

A——. In my stomach.

Ho——. In my eyes.

Father. What are your senses for?

Ho——. To know things.

Without any previous conversation, Ho—— (five years and a half old) said to her mother, "I think you will be glad my right foot is sore, because you told me I did not lean enough upon my left foot." This child seemed, on many occasions, to have formed an accurate idea of the use of punishment, considering it always as pain given to cure us of some fault, or to prevent us from suffering more pain in future.

April, 1792. H——, a boy nine years and three quarters old, as he was hammering at a work-bench, paused for a short time, and then said to his sister, who was in the room with him, "Sister, I observe that when I don't look at my right hand when I hammer, and only think where it ought to hit, I can hammer much better than when I look at it. I don't know what the reason of that is; unless it is because I think in my head."

M——. I am not sure, but I believe that we do think in our heads.

H——. Then, perhaps, my head is divided into two parts, and that one thinks for one arm, and one for the

other; so that when I want to strike with my right arm, I think where I want to hit the wood, and then, without looking at it, I can move my arm in the right direction: as when my father is going to write, he sometimes sketches it.

M——. What do you mean, my dear, by sketching it?

H——. Why, when he moves his hand (flourishes) without touching the paper with the pen. And at first, when I want to do any thing, I cannot move my hand as I mean; but after being used to it, then I can do much better. I don't know why.

After going on hammering for some time, he stopped again, and said, "There's another thing I wanted to tell you. Sometimes I think to myself, that it is right to think of things that are sensible; and then when I want to set about thinking of things that are sensible, *I cannot;* I can only think of that over and over again."

M——. You can only think of what?

H——. Of those words. They seem to be said to me over and over again, till I'm quite tired, "That it is right to think of things that have some sense."

The childish expressions in these remarks have not been altered, because we wished to show exactly how children at this age express their thoughts. If M. Condillac had been used to converse with children, he surely would not have expected that any boy of seven years old could understand his definition of attention, and his metaphysical preliminary lessons.

After these preliminary lessons, we have a sketch of the Prince of Parma's subsequent studies. M. Condillac says, that his royal highness (being not yet eight years old) was now "perfectly well acquainted with the system of intellectual operations. He comprehended already the production of his ideas; he saw the origin and the progress of the habits which he had contracted, and he perceived how he could substitute just ideas for the false ones which had been given to him, and good habits instead of the bad habits which he had been suffered to acquire. He had become so quickly familiar with all these things, that he retraced their connexion without effort, quite playfully."*

* Motif des études qui ont été faites après Leçons Préliminaires, p. 67. Le jeune prince connoissoit déja la système des operations de son ame, il comprenoit la génération de ses idées, il voyoit l'ori-

This prince must have been a prodigy! After having made him reflect upon his own infancy, the abbé judged that the infancy of the world would appear to his pupil "the most curious subject, and the most easy to study." The analogy between these two infancies seems to exist chiefly in words; it is not easy to gratify a child's curiosity concerning the infancy of the world Extracts from L'Origine des Loix, by M. Goguet, with explanatory notes, were put into the prince's hands, to inform him of what happened in the commencement of society. These were his evening studies. In the mornings he read the French poets, Boileau, Moliere, Corneille, and Racine. Racine, as we are particularly informed, was, in the space of one year, read over a dozen times. Wretched prince! Unfortunate Racine! The abbé acknowledges, that at first these authors were not understood with the same ease as the preliminary lessons had been: every word stopped the prince, and it seemed as if every line were written in an unknown language. This is not surprising; for how is it possible that a boy of seven or eight years old, who could know nothing of life and manners, could taste the wit and humour of Moliere; and, incapable as he must have been of sympathy with the violent passions of tragic heroes and heroines, how could he admire the lofty dramas of Racine? We are willing to suppose that the young Prince of Parma was quick, and well-informed for his age; but to judge of what is practicable, we must produce examples from common life, instead of prodigies.

S——, a boy of nine years old, of whose abilities the reader will be able to form some judgment from anecdotes in the following pages, whose understanding was not wholly uncultivated, when he was between nine and ten years old, expressed a wish to read some of Shakspeare's plays. King John was given to him. After the book had been before him for one winter's evening, he returned it to his father, declaring that he did not understand one word of the play; he could not

gine et le progrès des habitudes qu'il avoit contractées, et il concevoit comment il pouvoit substituer des idées justes aux idées fausses qu'on lui avoit données, et de bonnes habitudes aux mauvaises qu'on lui avoit laissé prendre. Il s'étoit familiarisé si promptement avec toutes ces choses, qu'il s'en retraçoit la suite sans effort, et comme en badinant.

make out what the people were about, and he did not wish to read any more of it. His brother H——, at twelve years old, had made an equally ineffectual attempt to read Shakspeare; he was also equally decided and honest in expressing his dislike to it; he was much surprised at seeing his sister B——, who was a year or two older than himself, reading Shakspeare with great avidity; and he frequently asked what it was in that book that could entertain her. Two years afterward, when H—— was between fourteen and fifteen, he made another trial; and he found that he understood the language of Shakspeare without any difficulty. He read all the historical plays with the greatest eagerness, and particularly seized the character of Falstaff. He gave a humorous description of the figure and dress which he supposed Sir John should have, of his manner of sitting, speaking, and walking. Probably, if H—— had been pressed to read Shakspeare at the time when he did not understand it, he might never have read these plays with real pleasure during his whole life. Two years increase prodigiously the vocabulary and the ideas of young people; and preceptors should consider, that what we call literary taste cannot be formed without a variety of knowledge. The productions of our ablest writers cannot please until we are familiarized to the ideas which they contain, or to which they allude.*

Poetry is usually supposed to be well suited to the taste and capacity of children. In the infancy of taste and of eloquence, rhetorical language is constantly admired; the bold expression of strong feeling, and the simple description of the beauties of nature, are found to interest both cultivated and uncultivated minds. To understand descriptive poetry, no previous knowledge is required, beyond what common observation and sympathy supply; the analogies and transitions of thought are slight and obvious; no labour of attention is demanded, no active effort of the mind is requisite to follow them. The pleasures of simple sensation are, by descriptive poetry, recalled to the imagination; and we live over again our past lives without increasing, and

* As this page was sent over to us for correction, we seize the opportunity of expressing our wish, that "Botanical Dialogues, by a Lady," had come sooner to our hands; it contains much that we think peculiarly valuable.

without desiring to increase, our stock of knowledge. If these observations be just, there must appear many reasons why even that species of poetry which they can understand, should not be the early study of children; from time to time it may be an agreeable amusement, but it should not become a part of their daily occupations. We do not want to retrace perpetually in their memories a few musical words, or a few simple sensations; our object is to enlarge the sphere of our pupil's capacity, to strengthen the habits of attention, and to exercise all the powers of the mind. The inventive and the reasoning faculties must be injured by the repetition of vague expressions, and of exaggerated description, with which most poetry abounds. Childhood is the season for observation, and those who observe accurately will afterward be able to describe accurately: but those who merely read descriptions, can present us with nothing but the pictures of pictures. We have reason to believe that children who have not been accustomed to read a vast deal of poetry are not, for that reason, less likely to excel in poetic language. The reader will judge from the following explanation of Gray's Hymn to Adversity, that the boy to whom they were addressed was not much accustomed to read even the most popular English poetry; yet this is the same child who, a few months afterward, wrote the translation from Ovid of the Cave of Sleep, and who gave the extempore description of a summer's evening in tolerably good language.

Jan. 1796. S—— (nine years old) learned by heart the Hymn to Adversity. When he came to repeat this poem, he did not repeat it well, and he had it not perfectly by heart. His father suspected that he did not understand it, and he examined him with some care.

Father. "Purple tyrants!" Why purple?

S——. Because purple is a colour something like red and black; and tyrants look red and black.

Father. No. Kings were formerly called tyrants, and they wore purple robes: the purple of the ancients is supposed to be not the colour which we call purple, but that which we call scarlet.

> "When first thy sire to send on earth
> Virtue, his darling child, design'd,
> To thee he gave the heavenly birth,
> And bade to form her infant mind."

When S—— was asked who was meant in these lines by "thy sire," he frowned terribly; but after some deliberation, he discovered that "thy sire" meant Jove, the father, or sire of Adversity: still he was extremely puzzled with "the heavenly birth." First he thought that the heavenly birth was the birth of Adversity: but, upon recollection, the heavenly birth was to be trusted to Adversity, therefore she could not be trusted with the care of herself. S—— at length discovered, that Jove must have had two daughters; and he said he supposed that Virtue must have been one of these daughters, and that she must have been sister to Adversity, who was to be her nurse, and who was to form her infant mind: he now perceived that the expression, "Stern, rugged nurse," referred to Adversity; before this, he said he did not know whom it meant, whose "rigid lore" was alluded to in these two lines, or who bore it with patience.

> "Stern, rugged nurse, thy rigid lore
> With patience many a year she bore."

The following stanza S—— repeated a second time, as if he did not understand it.

> "Scared at thy frown terrific fly
> Self-pleasing follies, idle brood,
> Wild laughter, noise, and thoughtless joy,
> And leave us leisure to be good.
> Light they disperse, and with them go
> The summer friend, the flattering foe;
> By vain prosperity receiv'd,
> To her they vow their truth, and are again believ'd."

Father. Why does the poet say *wild* laughter?

S——. It means, not reasonable.

Father. Why is it said,

> "By vain prosperity receïv'd,
> To her they vow their truth, and are again believ'd?"

S——. Because the people, I suppose, when they were in prosperity before, believed them before; but I think that seems confused.

> "Oh, gently on thy suppliant's head,
> Dread goddess, lay thy chastening hand."

S—— did not seem to comprehend the first of these

two lines; and upon cross-examination, it appeared that he did not know the meaning of the word *suppliant*; he thought it meant "a person who supplies us."

> "Not in thy Gorgon terrors clad,
> Nor circled by the vengeful band,
> As by the impious thou art seen."

It may appear improbable, that a child who did not know the meaning of the word suppliant should understand the Gorgon terrors, and the vengeful band, yet it was so: S—— understood these lines distinctly; he said, "Gorgon terrors, yes, like the head of Gorgon." He was at this time translating from Ovid's Metamorphoses; and it happened that his father had explained to him the ideas of the ancients concerning the furies; besides this, several people in the family had been reading Potter's Æschylus, and the furies had been the subject of conversation. From such accidental circumstances as these, children often appear, in the same instant almost, to be extremely quick and extremely slow of comprehension; a preceptor who is well acquainted with all his pupil's previous knowledge, can rapidly increase his stock of ideas by turning every accidental circumstance to account: but if a tutor persists in forcing a child to a regular course of study, all his ideas must be collected, not as they are wanted in conversation or in real life, but as they are wanted to get through a lesson or a book. It is not surprising, that M. Condillac found such long explanations necessary for his young pupil in reading the tragedies of Racine; he says that he was frequently obliged to translate the poetry into prose, and frequently the prince could gather only some general idea of the whole drama, without understanding the parts. We cannot help regretting, that the explanations have not been published for the advantage of future preceptors; they must have been almost as difficult as those for the preliminary lessons. As we are convinced that the art of education can be best improved by the registering of early experiments, we are very willing to expose such as have been made, without fear of fastidious criticism or ridicule.

May 1, 1796. A little poem, called "The Tears of Old May-day," published in the second volume of The World, was read to S——. Last May-day the same

poem had been read to him; he then liked it much, and his father wished to see what effect it would have upon this second reading. The pleasure of novelty was worn off, but S—— felt new pleasure from his having, during the last year, acquired a great number of new ideas, and especially some knowledge of ancient mythology, which enabled him to understand several allusions in the poem which had before been unintelligible to him. He had become acquainted with the muses, the graces, Cynthia, Philomel, Astrea, who are all mentioned in this poem; he now knew something about the Hesperian fruit, Amalthea's horn, choral dances, Libyan Ammon, &c., which are alluded to in different lines of the poem: he remembered the explanation which his father had given him the preceding year, of a line which alludes to the island of Atalantis:

> "Then vanished many a sea-girt isle and grove,
> Their forests floating on the wat'ry plain;
> Then famed for arts, and laws deriv'd from Jove,
> My Atalantis sunk beneath the main."

S——, whose imagination had been pleased with the idea of the fabulous island of Atalantis, recollected what he had heard of it; but he had forgotten the explanation of another stanza of this poem, which he had heard at the same time:

> "To her no more Augusta's wealthy pride,
> Pours the full tribute from Potosi's mine;
> Nor fresh-blown garlands village maids provide,
> A purer offering at her rustic shrine."

S—— forgot that he had been told that London was formerly called Augusta; that Potosi's mines contained silver; and that pouring the tribute from Potosi's mines, alludes to the custom of hanging silver tankards upon the Maypoles in London on May-day; consequently the beauty of this stanza was entirely lost upon him. A few circumstances were now told to S——, which imprinted the explanation effectually in his memory: his father told him that the publicans, or those who keep public houses in London, make it a custom to lend their silver tankards to the poor chimney-sweepers and milkmaids, who go in procession through the streets on May-day. The confidence that is put in the honesty of these poor people pleased S——, and all these circumstances fixed the principal idea more firmly in his mind.

The following lines could please him only by their sound, the first time he heard them:

"Ah! once to fame and bright dominion born,
The earth and smiling ocean saw me rise,
With time coeval, and the star of morn,
The first, the fairest daughter of the skies.

"Then, when at heaven's prolific mandate sprung
The radiant beam of new-created day,
Celestial harps, to airs of triumph strung,
Hail'd the glad dawn, and angels call'd me May.

"Space in her empty regions heard the sound,
And hills and dales, and rocks and valleys rung;
The sun exulted in his glorious round,
And shouting planets in their courses sung."

The idea which the ancients had of the music of the spheres was here explained to S——, and some general notion was given to him of the *harmonic numbers*.

What a number of new ideas this little poem served to introduce into the mind! These explanations being given precisely at the time when they were wanted, fixed the ideas in the memory in their proper places, and associated knowledge with the pleasures of poetry. Some of the effect of a poem must, it is true, be lost by interruptions and explanations; but we must consider the general improvement of the understanding, and not merely the cultivation of poetic taste. In the instance which we have just given, the pleasure which the boy received from the poem seemed to increase in proportion to the exactness with which it was explained. The succeeding year, on May-day, 1797, the same poem was read to him for the third time, and he appeared to like it better than he had done upon the first reading. If, instead of perusing Racine twelve times in one year, the young Prince of Parma had read any one play or scene at different periods of his education, and had been led to observe the increase of pleasure which he felt from being able to understand what he read better each succeeding time than before, he would probably have improved more rapidly in his taste for poetry, though he might not have known Racine by rote quite so early as at eight years old.

We considered parents almost as much as children, when we advised that a great deal of poetry should not be read by very young pupils; the labour and difficulty of explaining it can be known only to those who

tried the experiment. The Elegy in a Country Churchyard is one of the most popular poems which is usually given to children to learn by heart; it cost at least a quarter of an hour to explain to intelligent children, the youngest of whom was at the time nine years old, the first stanza of that elegy. And we have heard it asserted by a gentleman not unacquainted with literature, that perfectly to understand l'Allegro and Il Penseroso, requires no inconsiderable portion of ancient and modern knowledge. It employed several hours on different days to read and explain Comus, so as to make it intelligible to a boy of ten years, who gave his utmost attention to it. The explanations on this poem were found to be so numerous and intricate, that we thought it best not to produce them here. Explanations which are given by a reader, can be given with greater rapidity and effect, than any which a writer can give to children: the expression of the countenance is advantageous, the sprightliness of conversation keeps the pupils awake, and the connexion of the parts of the subject can be carried on better in speaking and reading, than it can be in written explanations. Notes are almost always too formal or too obscure; they explain what was understood more plainly before any illustration was attempted, or they leave us in the dark the moment we want to be enlightened. Wherever parents or preceptors can supply the place of notes and commentators, they need not think their time ill bestowed. If they cannot undertake these troublesome explanations, they can surely reserve obscure poems for a later period of their pupils' education. Children who are taught at seven or eight years old to repeat poetry, frequently get beautiful lines by rote, and speak them fluently, without in the least understanding the meaning of the lines. The business of a poet is to please the imagination and to move the passions: in proportion as his language is sublime or pathetic, witty or satirical, it must be unfit for children. Knowledge cannot be detailed, or accurately explained, in poetry; the beauty of an allusion depends frequently upon the elliptical mode of expression, which, passing imperceptibly over all the intermediate links in our associations, is apparent only when it touches the ends of the chain. Those who wish to instruct must pursue the opposite system.

In Doctor Wilkins's Essay on Universal Language, he

proposes to introduce a note similar to the common note of admiration, to give the reader notice when any expression is used in an ironical or in a metaphoric sense. Such a note would be of great advantage to children: in reading poetry, they are continually puzzled between the obvious and the metaphoric sense of the words.* The desire to make children learn a vast deal of poetry by heart, fortunately for the understanding of the rising generation, does not rage with such violence as formerly. Dr. Johnson successfully laughed at infants lisping out, "Angels and ministers of grace, defend us." His reproof was rather illnatured, when he begged two children who were produced to repeat some lines to him, "Can't the pretty dears repeat them both together?" But this reproof has probably prevented many exhibitions of the same kind.

Some people learn poetry by heart for the pleasure of quoting it in conversation; but the talent for quotation, both in conversation and in writing, is now become so common, that it cannot confer immortality.† Every person has by rote certain passages from Shakspeare and Thomson, Goldsmith and Gray: these trite quotations fatigue the literary ear, and disgust the taste of the public. To this change in the fashion of the day, those who are influenced by fashion will probably listen with more eagerness than to all the reasons that have been offered. But to return to the Prince of Parma. After reading Corneille, Racine, Moliere, Boileau, &c., the young prince's taste was formed, as we are assured by his preceptor, and he was now fit for the study of grammar. So much is due to the benevolent intentions of a man of learning and genius, who submits to the drudgery of writing an elementary book on grammar, that even a critic must feel unwilling to examine it with severity. M. Condillac, in his attempt to write a rational grammar, has produced, if not a grammar fit for children, a philosophical treatise, which a well-educated young person will read with great advantage at the age of seventeen or eighteen. All that is said of the natu-

* In Dr. Franklin's posthumous Essays, there is an excellent remark with respect to typography, as connected with the art of reading. The note of interrogation should be placed at the beginning, as well as at the end of a question; it is sometimes so far distant as to be out of the reach of an unpractised eye.

† Young.

ral language of signs, of the language of action, of pantomimes, and of the institution of M. l'Abbé l'Epée for teaching languages to the deaf and dumb, is not only amusing and instructive to general readers, but, with slight alterations in the language, might be perfectly adapted to the capacity of children. But when the Abbé Condillac goes on to "Your highness knows what is meant by a system," he immediately forgets his pupil's age. The reader's attention is presently deeply engaged by an abstract disquisition on the relative proportion, represented by various circles of different extent, of the wants, ideas, and language of savages, shepherds, commercial and polished nations, when he is suddenly awakened to the recollection, that all this is addressed to a child of eight years old: an allusion to the prince's little chair completely rouses us from our revery.

"As your little chair is made in the same form as mine, which is higher, so the system of ideas is fundamentally the same among savage and civilized nations; it differs only in degrees of extension, as, after one and the same model, seats of different heights have been made."*

Such mistakes as these, in a work intended for a child, are so obvious, that they could not have escaped the penetration of a great man, had he known as much of the practice as he did of the theory of the art of teaching.

To analyze a thought, and to show the construction of language, M. Condillac, in this volume on grammar, has chosen for an example a passage from an *Eloge* on Peter Corneille, pronounced before the French academy by Racine, on the reception of Thomas Corneille, who succeeded to Peter. It is in the French style of academical panegyric, a representation of the chaotic state in which Corneille found the French theatre, and of the light and order which he diffused through the dramatic world by his creative genius. A subject less interesting, or more unintelligible to a child, could scarcely

* "Comme votre petite chaise est faite sur le même modèle que la mienne, qui est plus élevée, ainsi le système des idées est le même pour le fond chez les peuples sauvages et chez les peuples civilisés; il ne differe, que parce qu'il est plus ou moins etendu; c'est un même modèle d'après lequel on a fait des siéges de différent hauteur." —Grammaire, p. 23.

have been selected. The lecture on the anatomy of Racine's thought lasts through fifteen pages; according to all the rules of art, the dissection is ably performed; but most children will turn from the operation with disgust.

The Abbé Condillac's treatise on the art of writing immediately succeeds to his grammar. The examples in this volume are much better chosen; they are interesting to all readers; those especially from Madame de Sevigné's letters, which are drawn from familiar language and domestic life. The enumeration of the figures of speech, and the classification of the flowers of rhetoric, are judiciously suppressed; the catalogue of the different sorts of *turns*, phrases proper for maxims and principles, turns proper for sentiment, ingenious turns and quaint turns, stiff turns and easy turns, might perhaps have been somewhat abridged. The observations on the effect of unity in the whole design, and in all the subordinate parts of a work, though they may not be new, are ably stated; and the remark, that the utmost propriety of language, and the strongest effect of eloquence and reasoning, result from the greatest possible attention to the connexion of our ideas, is impressed forcibly upon the reader throughout this work.

How far works of criticism in general are suited to children, remains to be considered. Such works cannot probably suit their taste, because the taste for systematic criticism cannot arise in the mind until many books have been read; until the various species of excellence suited to different sorts of composition have been perceived, and until the mind has made some choice of its own. It is true, that works of criticism may teach children to talk well of what they read; they will be enabled to repeat what good judges have said of books. But this is not, or ought not to be the object. After having been thus officiously assisted by a connoisseur, who points out to them the beauties of authors, will they be able afterward to discover beauties without his assistance? Or have they as much pleasure in being told what to admire, what to praise, and what to blame, as if they had been suffered to feel and to express their own feelings naturally? In reading an interesting play, or beautiful poem, how often has a man of taste and genius execrated the impertinent commentator, who interrupts him by obtruding his ostentatious

notes—"The reader will observe the beauty of this thought."—"This is one of the finest passages in any author, ancient or modern."—"The sense of this line, which all former annotators have mistaken, is obviously restored by the addition of the vowel i," &c.

Deprived, by these anticipating explanations, of the use of his own common sense, the reader detests the critic, soon learns to disregard his references, and to skip over his learned truisms. Similar sensations, tempered by duty or by fear, may have been sometimes experienced by a vivacious child, who, eager to go on with what he is reading, is prevented from feeling the effect of the whole, by a premature discussion of its parts. We hope that no keen hunter of paradoxes will here exult in having detected us in a contradiction: we are perfectly aware, that but a few pages ago, we exhibited examples of detailed explanations of poetry for children; but these explanations were not of the criticising class; they were not designed to tell young people what to admire, but simply to assist them to understand before they admired.

Works of criticism are sometimes given to pupils, with the idea that they will instruct and form them in the art of writing: but few things can be more terrific or dangerous to the young writer than the voice of relentless criticism. Hope stimulates, but fear depresses the active powers of the mind; and how much have they to fear who have continually before their eyes the mistakes and disgrace of others; of others, who with superior talents have attempted and failed! With a multitude of precepts and rules of rhetoric full in their memory, they cannot express the simplest of their thoughts; and to write a sentence composed of members which have each of them names of many syllables, must appear a most formidable and presumptuous undertaking. On the contrary, a child who, in books and in conversation, has been used to hear and to speak correct language, and who has never been terrified with the idea, that to write is to express his thoughts in some new and extraordinary manner, will naturally write as he speaks and as he thinks. Making certain characters upon paper, to represent to others what he wishes to say* to them, will not appear to him a matter of dread and

* Rousseau.

danger, but of convenience and amusement; and he will write prose without knowing it.

Among some "Practical Essays,"* lately published, "to assist the exertions of youth in their literary pursuits," there is an essay on letter-writing, which might deter a timid child from ever undertaking such an arduous task as that of writing a letter. So much is said from Blair, from Cicero, from Quintilian; so many things are requisite in a letter; purity, neatness, simplicity; such caution must be used to avoid "exotics transplanted from foreign languages, or raised in the hotbeds of affectation and conceit;" such attention to the mother-tongue is prescribed, that the young nerves of the letter-writer must tremble when he takes up his pen. Besides, he is told that "he should be extremely reserved on the head of pleasantry," and that "as to sallies of wit, it is still more dangerous to let them fly at random; but he may repeat the smart sayings of others if he will, or relate *part* of some droll adventure to enliven his letter."

The anxiety that parents and tutors frequently express to have their children write letters, and good letters, often prevents the pupils from writing during the whole course of their lives. Letter-writing becomes a task and an evil to children; whether they have any thing to say or not, write they must, this post or next, without fail, *a pretty letter* to some relation or friend, who has exacted from them the awful promise of punctual correspondence. It is no wonder that schoolboys and school-girls, in these circumstances, feel that necessity is *not* the mother of invention; they are reduced to the humiliating misery of begging from some old practitioner a beginning or an ending, and something to say to fill up the middle.

Locke humorously describes the misery of a schoolboy who is to write a theme; and having nothing to say, goes about with the usual petition in these cases to his companions, "Pray give me a little sense." Would it not be better to wait until children have sense, before we exact from them themes and discourses upon literary subjects? There is no danger that those who acquire a variety of knowledge and numerous ideas, should not be able to find words to express them; but

* Milne's Wellbred Scholar.

those who are compelled to find words before they have ideas, are in a melancholy situation. To form a style is but a vague idea; practice in composition will certainly confer ease in writing, upon those who write when their minds are full of ideas; but the practice of sitting, with a melancholy face, with pen in hand, waiting for inspiration, will not much advance the pupil in the art of writing. We should not recommend it to a preceptor to require regular themes at stated periods from his pupils; but whenever he perceives that a young man is struck with any new ideas or new circumstances, when he is certain that his pupil has acquired a fund of knowledge, when he finds in conversation that words flow readily upon certain subjects, he may, without danger, upon these subjects, excite his pupil to try his powers of writing. These trials need not be frequently made: when a young man has once acquired confidence in himself as a writer, he will certainly use his talent whenever proper occasions present themselves. The perusal of the best authors in the English language will give him, if he adhere to these alone, sufficient powers of expression. The best authors in the English language are so well known, that it would be useless to enumerate them. Dr. Johnson says, that whoever would acquire a pure English style, must give his days and nights to Addison. We do not, however, feel this exclusive preference for Addison's melodious periods: his page is ever elegant, but sometimes it is too diffuse. Hume, Blackstone, and Smith, have a proper degree of strength and energy combined with their elegance. Gibbon says, that the perfect composition and well-turned periods of Dr. Robertson, excited his hopes that he might one day become his equal in writing; but "the calm philosophy, the careless, inimitable beauties of his friend and rival Hume, often forced him to close the volume with a mixed sensation of delight and despair." From this testimony we may judge, that a simple style appears to the best judges to be more difficult to attain, and more desirable, than that highly ornamented diction to which writers of inferior taste aspire. Gibbon tells us with great candour, that his friend Hume advised him to beware of the rhetorical style of French eloquence. Hume observed, that the English language and English taste do not admit of this profusion of ornament.

Without meaning to enter at large into the subject, we have offered these remarks upon style for the advantage of those who are to direct the taste of young readers; what they admire when they read, they will probably imitate when they write. We objected to works of criticism for young children,—but we should observe, that at a later period of education, they will be found highly advantageous. It would be absurd to mark the precise age at which Blair's Lectures or Condillac's Art d'Ecrire ought to be read, because this should be decided by circumstances; by the progress of the pupils in literature, and by the subjects to which their attention happens to have turned. Of these, preceptors, and the pupils themselves, must be the most competent judges. From the same wish to avoid all pedantic attempts to dictate, we have not given any regular course of study in this chapter. Many able writers have laid down extensive plans of study, and have named the books that are essential to the acquisition of different branches of knowledge. Among others we may refer to Dr. Priestley's, which is to be seen at the end of his Essays on Education. We are sensible that order is necessary in reading,—but we cannot think that the same order will suit all minds, nor do we imagine that a young person cannot read to advantage unless he pursue a given course of study. Men of sense will not be intolerant in their love of learned order.

If parents would keep an accurate list of the books which their children read, of the ages at which they are read, it would be of essential service in improving the art of education. We might then mark the progress of the understanding with accuracy, and discover, with some degree of certainty, the circumstances on which the formation of the character and taste depends. Swift has given us a list of the books which he read during two years of his life; we can trace the ideas that he acquired from them in his Laputa, and other parts of Gulliver's Travels. Gibbon's journal of his studies, and his account of universities, are very instructive to young students. So is the life of Franklin, written by himself. Madame Roland has left a history of her education; and in the books she read in her early years, we see the formation of her character. Plutarch's Lives, she tells us, first kindled republican enthusiasm in her mind; and she regrets that, in forming her ideas of universal lib-

erty, she had only a partial view of affairs. She corrected these enthusiastic ideas during the last moments of her life in prison. Had the impression which her study of the Roman history made upon her mind been known to an able preceptor, it might have been corrected in her early education. When she was led to execution, she exclaimed, as she passed the statue of Liberty, "Oh Liberty, what crimes are committed in thy name!"*

Formerly it was wisely said, "Tell me what company a man keeps, and I will tell you what he is;" but since literature has spread a new influence over the world, we must add, "Tell me what company a man has kept, and what books he has read, and I will tell you what he is."

CHAPTER XIII.

ON GRAMMAR AND CLASSICAL LITERATURE.

As long as gentlemen feel a deficiency in their own education, when they have not a competent knowledge of the learned languages, so long must a parent be anxious that his son should not be exposed to the mortification of appearing inferior to others of his own rank. It is in vain to urge that language is only the key to science; that the names of things are not the things themselves; that many of the words in our own language convey scarcely any, or at best but imperfect, ideas; that the true genius, pronunciation, melody, and idiom of Greek, are unknown to the best scholars, and that it cannot reasonably be doubted that if Homer and Xenophon were to hear their works read by a professor of Greek, they would mistake them for the sounds of an unknown language. All this is true; but it is not the ambition of a gentleman to read Greek like an ancient Grecian, but to understand it as well as the generality of his contemporaries; to know whence the terms of

* "Oh Liberté, que de forfaits on commis en ton nom!"
See Appel à l'Impartielle Postérité.

most sciences are derived, and to be able, in some degree, to trace the progress of mankind in knowledge and refinement, by examining the extent and combination of their different vocabularies.

In some professions Greek is necessary; in all, a certain proficiency in Latin is indispensable; how, therefore, to acquire this proficiency in the one, and a sufficient knowledge of the other, with the least labour, the least waste of time, and the least danger to the understanding, is the material question. Some schoolmasters would add, that we must expedite the business as much as possible: of this we may be permitted to doubt. *Festina lente* is one of the most judicious maxims in education; and those who have sufficient strength of mind to adhere to it, will find themselves at the goal, when their competitors, after all their bustle, are panting for breath or lashing their restive steeds. We see some untutored children start forward in learning with rapidity: they seem to acquire knowledge at the very time it is wanted, as if by intuition; while others, with whom infinite pains have been taken, continue in dull ignorance; or, having accumulated a mass of learning, are utterly at a loss how to display or how to use their treasures. What is the reason of this phenomenon? and to which class of children would a parent wish his son to belong? In a certain number of years, after having spent eight hours a day in "durance vile," by the influence of bodily fear, or by the infliction of bodily punishment, a regiment of boys may be drilled by an indefatigable usher into what are called scholars; but perhaps in the whole regiment, not one shall ever distinguish himself, or ever emerge from the ranks. Can it be necessary to spend so many years, so many of the best years of life, in toil and misery? We shall calculate the waste of time which arises from the study of ill-written, absurd, grammar and exercise-books; from the habits of idleness contracted by schoolboys, and from the custom of allowing holydays to young students; and we shall compare the result of this calculation with the time really necessary for the attainment of the same quantity of classical knowledge by rational methods. We do not enter into this comparison with any invidious intention, but simply to quiet the apprehensions of parents; to show them the possibility of their children's attaining a certain portion of learning within a given

number of years, without the sacrifice of health, happiness, or the general powers of the understanding.

At all events, may we not begin by imploring the assistance of some able and friendly hand to reform the present generation of grammars and school-books? For instance, is it indispensably necessary that a boy of seven years old should learn by rote that "relative sentences are independent, *i. e.* no word in a relative sentence is governed either of verb or adjective that stands in another sentence, or depends upon any appertenances of the relative; and that the English word 'That' is always a relative when it may be turned into *which* in good sense, which must be tried by reading over the English sentence *warily*, and judging how the sentence will bear it; but when it cannot be altered, *salvo sensu*, it is a conjunction!" Cannot we, for pity's sake, to assist the learner's memory, and to improve his intellect, substitute some sentences a little more connected, and perhaps a little more useful, than the following?

"I have been a soldier—You have babbled—Has the crow ever looked white?—Ye have exercised—Flowers have withered—We were in a passion—Ye lay down—Peas were parched—The lions did roar awhile ago."

In a book of Latin exercises,* the preface to which informs us that "it is intended to contain such precepts of morality and religion as ought most industriously to be inculcated into the heads of all learners, contrived so as that children may, as it were, insensibly suck in such principles as will be of use to them afterward in the manly conduct and ordering of their lives," we might expect somewhat more of pure morality and sense, with rather more elegance of style, than appear in the following sentences:—

"I struck my sister with a stick, and was forced to flee into the woods; but when I had tarried there awhile, I returned to my parents, and submitted myself to their mercy, and they forgave me my offence."

"When my dear mother, unknown to my father, shall send me money, I will pay my creditors their debts, and provide a supper for all my friends in my chamber, without my brother's consent, and will make presents to all my relations."

So the measure of maternal tenderness is the sum of

* Garretson's Exercises, the tenth edition.

money which the dear mother, unknown to her husband, shall send to her son; the measure of the son's generosity is the supper he is to give to all his friends in his chamber, exclusive of his poor brother, of whose offence we are ignorant. His munificence is to be displayed in making presents to all his relations—but in the meantime he might possibly forget to pay his debts, for "justice is a slow-paced virtue, and cannot keep pace with generosity."

A reasonable notion of punishment, and a disinterested love of truth, are well introduced by the following picture: "My master's countenance was greatly changed when he found his beloved son guilty of a lie. Sometimes he was pale with anger; sometimes he was red with rage; and in the meantime, he, poor boy, was trembling (for what?) for fear of punishment." Could the ideas of punishment and vengeance be more effectually joined, than in this portrait of the master red with rage? After truth has been thus happily recommended, comes honesty. "Many were fellow-soldiers with valiant Jason when he stole the golden fleece; many were companions with him, but he bore away the glory of the enterprise."

Valour, theft, and glory, are here happily combined. It will avail us nothing to observe that the golden fleece has an allegorical meaning, unless we can explain satisfactorily the nature of an allegorical theft; though to our classical taste this valiant Jason may appear a glorious hero, yet, to the simple judgment of children, he will appear a robber. It is fastidious, however, to object to Jason in the exercise-book, when we consider what children are to hear, and to hear with admiration, as they advance in their study of poetry and mythology.

Lessons of worldly wisdom are not forgotten in our manual, which professes to teach "*the manly conduct and ordering of life*" to the rising generation. "Those men," we are told, "who have the most money, obtain the greatest honour among men." But then again, "a poor man is as happy without riches, *if* he can enjoy contentedness of mind, as the richest earl that coveteth greater honour." It may be useful to put young men upon their guard against hypocrites and knaves; but is it necessary to tell schoolboys that "it concerneth me, and all men, to look to ourselves, for the world is so full of knaves and hypocrites, that he is hard to be found

who may be trusted?" That "they who behave themselves the most warily of all men, and live more watchfully than others, may happen to do something which (if it be divulged) may very much damnify their reputation?" A knowledge of the world may be early requisite; but is it not going too far to assure young people, that "the nations of the world are at this time come to that pass of wickedness, that the earth is like hell, and many men have degenerated into devils."

A greater variety of ridiculous passages from this tenth edition of Garretson's Exercise-book, might be selected for the reader's entertainment; but the following specimens will be sufficient to satisfy him, that by this original writer, natural history is as well taught as morality:

Man. "Man is a creature of an upright body; he walketh upright when he is on a journey; and when night approaches, he lieth flat, and sleepeth."

Horses. "A journey an hundred and fifty miles long, tireth a horse that hath not had a moderate feed of corn."

Air, Earth, Fire, and Water. "The air is nearer the earth than the fire; but the water is placed nearest to the earth, because these two elements compose but one body."

It is an easy task, it will be observed, to ridicule absurdity. It is easy to pull down what has been ill built; but if we leave the ruins for others to stumble over, we do little good to society. Parents may reasonably say, if you take away from our children the books they have, give them better. They are not yet to be had; but if a demand for them be once excited, they will soon appear. Parents are now convinced, that the first books which children read make a lasting impression upon them; but they do not seem to consider spelling-books, and grammars, and exercise-books, as books, but only as tools for different purposes: these tools are often very mischievous; if we could improve them, we should get our work much better done. The barbarous translations which are put as models for imitation into the hands of schoolboys, teach them bad habits of speaking and writing, which are sometimes incurable. For instance, in the fourteenth edition of Clarke's Cornelius Nepos, which the preface informs us was written by a man full of indignation for the common practices of grammar-schools, by a man who laments that youth

should spend their time "in tossing over the leaves of a dictionary, and hammering out such a language as the Latin," we might expect some better translation than the following, to form the young student's style:

"Nobody ever heard any other entertainment for the ears at *his* (Atticus's) meals than a reader, which we truly think very pleasant. Nor was there ever a supper at his house without some reading, that their guests might be entertained in their minds as well as their stomachs; *for* he invited those whose manners were not different from his own."

"He (Atticus) likewise had a touch at poetry, that he might not be unacquainted with this pleasure, we suppose. *For* he has related in verses the lives of those who excelled the Roman people in honour, and the greatness of their exploits. *So* that he has described under each of their images, their actions and offices in no more than four or five verses, *which* is scarcely to be believed *that* such great things could be so briefly delivered."

Those who, in reading these quotations, have perhaps exclaimed, "Why must we go through this farrago of nonsense?" should reflect, that they have now wasted but a few minutes of their time upon what children are doomed to study for hours and years. If a few pages disgust, what must be the effect of volumes in the same style! and what sort of writing can we expect from pupils who are condemned to such reading? The analogy of ancient and modern languages differs so materially, that a literal translation of any ancient author can scarcely be tolerated. Yet, in general, young scholars are under a necessity of *rendering* their Latin lessons into English word for word, faithful to the taste of their dictionaries, or the notes in their translations. This is not likely to improve the freedom of their English style; or, what is of much more consequence, is it likely to preserve in the pupil's mind a taste for literature? It is not the time that is spent in poring over lexicons, it is not the multiplicity of rules learned by rote, nor yet is it the quantity of Latin words crammed into the memory, which can give the habit of attention or the power of voluntary exertion; without these, you will never have time enough to teach; with them, there will always be time enough to learn.—One half hour's vigorous application is worth a whole day's constrained

and yawning *study*. If we compare what from experience we know can be done by a child of ordinary capacity in a given time, with what he actually does in school-hours, we shall be convinced of the enormous waste of time incident to the common methods of instruction. Tutors are sensible of this; but they throw the blame upon their pupils—"You might have learned your lesson in half the time, if you had chosen it." The children also are sensible of this; but they are not able or willing to prevent the repetition of the reproach. But exertion does not always depend upon the will of the boy; it depends upon his previous habits, and upon the strength of the immediate motive which acts upon him. Some children of quick abilities, who have too much time allotted for their classical studies, are so fully sensible themselves of the pernicious effect this has upon their activity of mind, that they frequently defer *getting their lessons* to the last moment, that they may be forced by a sufficient motive to exert themselves. In *classes* at public schools, the quick and the slow, the active and indolent, the stumbling and surefooted, are all yoked together, and are forced to keep pace with one another; stupidity may sometimes be dragged along by the vigour of genius; but genius is more frequently chained down by the weight of stupidity. We are well aware of the difficulties with which the public preceptor has to contend; he is often compelled by his situation to follow ancient usage, and to continue many customs which he wishes to see reformed. Any reformation in the manner of instruction in these public seminaries must be gradual, and will necessarily follow the conviction that parents may feel of its utility. Perhaps nothing can be immediately done, more practicably useful, than to simplify grammar, and to lighten as much as possible the load that is laid upon the memory. Without a multiplicity of masters, it would be impossible to suit instruction to the different capacities and previous acquirements of a variety of pupils; but in a private education, undoubtedly, the task may be rendered much easier to the scholar and to the teacher; much jargon may be omitted; and what appears from want of explanation to be jargon, may be rendered intelligible by proper skill and attention. During the first lessons in grammar and in Latin, the pupil need not be disgusted with literature, and we may apply all the principles

which we find on other occasions successful in the management of the attention.* Instead of keeping the attention feebly obedient for an idle length of time, we should fix it decidedly, by some sufficient motive, for as short a period as may be requisite to complete the work that we would have done. As we apprehend, that even where children are to be sent to school, it will be a great advantage to them to have some general notions of grammar to lead them through the labyrinth of common school-books, we think that we shall do the public preceptor an acceptable service, if we point out the means by which parents may, without much labour to themselves, render the first principles of grammar intelligible and familiar to their children.

We may observe, that children pay the strictest attention to the analogies of the language that they speak. Where verbs are defective or irregular, they supply the parts that are wanting with wonderful facility, according to the common form of other verbs. They make all verbs regular. I go*ed*, I read*ed*, I writ*ed*, &c. By a proper application of this faculty, much time may be saved in teaching children grammar, much perplexity, and much of that ineffectual labour which stupifies and dispirits the understanding. By gentle degrees, a child may be taught the relations of words to each other in common conversation, before he is presented with the first sample of grammatical eloquence in Lilly's Accidence. "There be eight parts of speech." A phrase which in some parts of this kingdom would perhaps be understood, but which, to the generality of boys who go to school, conveys no meaning, and is got by heart without reflection, and without advantage. A child can, however, be made to understand these formidable parts of speech, if they are properly introduced to his acquaintance: he can comprehend, that some of the words which he hears express *that something is done*; he will readily perceive, that if something is done, somebody or something must do it: he will distinguish with much facility the word in any common sentence which expresses an action, and that which denotes the agent. Let the reader try the experiment immediately upon any child of six or seven years old who has *not* learned grammar, and he may easily ascertain the fact.

* See Chapter on Attention.

A few months ago, Mr. —— gave his little daughter H——, a child of five years old, her first lesson in English grammar; but no alarming book of grammar was produced upon the occasion, nor did the father put on an unpropitious gravity of countenance. He explained to the smiling child the nature of a verb, a pronoun, and a substantive.

Then he spoke a short familiar sentence, and asked H—— to try if she could find out which word in it was a verb, which a pronoun, and which a substantive. The little girl found them all out most successfully, and formed no painful associations with her first grammatical lesson. But though our pupil may easily understand, he will easily forget our first explanations; but provided he understands them at the moment, we should pardon his forgetfulness, and we should patiently repeat the same exercise several days successively; a few minutes at each lesson will be sufficient, and the simplest sentences, such as children speak themselves, will be the best examples. Mr. ——, after having talked four or five times, for a few minutes at a time, with his son S——, when S—— was between five and six years old, about grammar, asked him if he knew what a pronoun meant? The boy answered, "A word that is said instead of a substantive." As these words might have been merely remembered by rote, the father questioned his pupil farther, and asked him to name any pronoun that he recollected. S—— immediately said, "*I* a pronoun."—"Name another," said his father. The boy answered after some pause, as if he doubted whether it was or was not a pronoun, *A*. Now it would have been very imprudent to make a sudden exclamation at the child's mistake. The father, without showing any surprise, gently answered, "No, my dear, *a* does not stand in the place of any substantive. We say *a man*, but the word *a* does not mean a *man*, when it is said by itself—Does it?"

S——. No.

Father. Then try if you can find out a word that does.

S——. *He* and *Sir*.

Sir does stand in conversation in the place of a man or gentleman, therefore the boy, even by this mistake, showed that he had formed, from the definition that had been given to him, a general idea of the nature of a pronoun; and at all events he exercised his understanding

upon the affair, which is the principal point we ought to have in view.

An interjection is a part of speech familiar to children. Mr. Horne Tooke is bitter in his contempt for it, and will scarcely admit it into civilized company. "The brutish, inarticulate interjection, which has nothing to do with speech, and is only the miserable refuge of the speechless, has been permitted to usurp a place among words," &c.—"The neighing of a horse, the lowing of a cow, the barking of a dog, the purring of a cat; sneezing, coughing, groaning, shrieking, and every other involuntary convulsion with oral sound, have almost as good a title to be called parts of speech, as interjections have."

Mr. Horne Tooke would have been pleased with the sagacity of a child of five years old (S——) who called *laughing* an interjection. Mr. —— gave S—— a slight pinch, in order to produce "an involuntary convulsion with oral sound." And when the interjection Oh! was uttered by the boy, he was told by his father that the word was an interjection; and, that "any word or noise that expresses a sudden feeling of the mind may be called an interjection." S—— immediately said, "is laughing an interjection, then?" We hope that the candid reader will not imagine that we produce these *sayings* of children of four or five years old, without some sense of the danger of ridicule; but we wish to give some idea of the sort of simple answers which children are likely to make in their first grammatical lessons. If too much is expected from them, the disappointment which must be quickly felt, and will be quickly shown by the preceptor, will discourage the pupil. We must repeat, that the first steps should be frequently retraced: a child should be *for some weeks* accustomed to distinguish an active verb, and its agent, or nominative case, from every other word in a sentence, before we attempt to advance. The objects of actions are the next class of words that should be selected.

The fanciful, or at least what appears to the moderns fanciful, arrangement of the cases among grammarians, may be dispensed with for the present. The idea that the nominative is a direct, upright *case*, and that the genitive declines with the smallest obliquity from it; the dative, accusative, and ablative, falling farther and

farther from the perpendicularity of speech, is a species of metaphysics not very edifying to a child. Into what absurdity men of abilities may be led by the desire of explaining what they do not sufficiently understand, is fully exemplified in other sciences as well as grammar.

The discoveries made by the author of Epea Pteroenta, show the difference between a vain attempt to substitute analogy and rhetoric in the place of demonstration and common sense. When a child has been patiently taught in conversation to analyze what he says, he will take great pleasure in the exercise of his new talent; he will soon discover, that the cause of the action does not always come before the verb in a sentence, that sometimes it follows the verb. "John beats Thomas," and "Thomas is beaten by John," he will perceive, mean the same thing; he may, with very little difficulty, be taught the difference between a verb active and a verb passive; that one brings first before the mind the person or thing which performs the action, and the other represents in the first place the person or thing upon whom the action is performed. A child of moderate capacity, after he has been familiarized to this general idea of a verb active and passive, and after he has been taught the names of the cases, will probably, without much difficulty, discover that the nominative case to a passive verb becomes the accusative case to a verb active. "Schoolmasters are plagued by boys." A child sees plainly, that schoolmasters are the persons upon whom the action of plaguing is performed, and he will convert the sentence readily into "boys plague schoolmasters."

We need not, however, be in any hurry to teach our pupil the names of the cases; technical grammar may be easily learned after a general idea of rational grammar has been obtained. For instance, *the verb* means only *the word*, or the principal word in a sentence; a child can easily learn this after he has learned what is meant by a sentence; but it would be extremely difficult to make him comprehend it before he could distinguish a verb from a noun, and before he had any idea of the structure of a common sentence. From easy, we should proceed to more complicated sentences. The grammatical construction of the following lines, for example, may not be immediately apparent to a child:—

> "What modes of sight between each vast extreme,
> The mole's dim curtain, and the lynx's beam;
> Of smell, the headlong lioness between,
> And hound sagacious on the tainted green."

"*Of smell.*" A girl of ten years old (C——) was asked if she could tell what substantive the word "*of*" relates to; she readily answered "*modes.*" C—— had learned a general idea of grammar in conversation, in the manner which we have described. It is asserted from experience, that this method of instructing children in grammar by conversation, is not only practicable, but perfectly easy; and that the minds of children are adapted to this species of knowledge. During life, we learn with eagerness whatever is congenial with our present pursuits, and the acquisition of language is one of the most earnest occupations of childhood. After distinct and ready knowledge of the verb and nominative case has been acquired, the pupil should be taught to distinguish the object of an action, or in other words, the objective or accusative case. He should be exercised in this, as in the former lessons, repeatedly, until it becomes perfectly familiar; and he should be encouraged to converse about these lessons, and to make his own observations concerning grammar, without fear of the preceptor's peremptory frown, or positive reference to "*his rules.*" A child of five years old was asked what the word "*Here!*" meant?—He answered, "It means to give a thing."

"When I call a person, as John! John! it seems to me," said a boy of nine years old (S——) "it seems to me, that the vocative case is both the verb and its accusative case." A boy who had ever been checked by his tutor for making his own observations upon the mysterious subject of grammar, would never have dared to think or to utter a new thought so freely.—Forcing children to learn any art or science by rote, without permitting the exercise of the understanding, must materially injure their powers both of reasoning and of invention. We acknowledge that Wilkins and Tooke have shown masters how to teach grammar a little better than it was formerly taught. Fortunately for the rising generation, all the words under the denomination of adverbs, prepositions, and conjunctions, which were absolute nonsense to us, may be easily explained to

them, and the commencement of instruction need no longer lay the foundation of implicit acquiescence in nonsense. We refer to Mr. Horne Tooke's "Epea Pteroenta," forbearing to dilate upon the principles of his work, lest we should appear in the invidious light of authors who rob the works of others to adorn their own. We cannot help expressing a wish, that Mr. Horne Tooke would have the philanthropic patience to write an elementary work in a *simple style*, unfolding his grammatical discoveries to the rising generation.

When children have thus, by gentle degrees, and by short and clear conversations, been initiated in general grammar, and familiarized to its technical terms, the first page of tremendous Lilly will lose much of its horror. It has been taken for granted, that at the age of which we have been speaking, a child can read English tolerably well, and that he has been used to employ a dictionary. He may now proceed to translate from some easy books a few short sentences: the first word will probably be an adverb or conjunction; either of them may readily be found in the Latin dictionary, and the young scholar will exult in having translated one word of Latin; but the next word, a substantive or verb perhaps, will elude his search. Now the grammar may be produced, and something of the various terminations of a noun may be explained. If *musam* be searched for in the dictionary, it cannot be found; but *musa* catches the eye, and, with the assistance of the grammar, it may be shown, that the meaning of words may be discovered by the united helps of the dictionary and grammar. After some days' patient continuation of this exercise, the use of the grammar, and of its uncouth collection of words and syllables, will be apparent to the pupil: he will perceive that the grammar is a sort of appendix to the dictionary. The grammatical formulæ may then, by gentle degrees, be committed to memory; and when once got by heart, should be assiduously preserved in the recollection. After the preparation which we have recommended, the singular number of a declension will be learned in a few minutes by a child of ordinary capacity, and after two or three days' repetition, the plural number may be added. The whole of the first declension should be well fixed in the memory before a second is attempted. During this process, a few words at every lesson may be translated from

Latin to English, and such nouns as are of the first declension may be compared with *musa*, and may be declined according to the same form. Tedious as this method may appear, it will in the end be found expeditious Omitting some of the theoretic or didactic part of the grammar, which should only be read, and which may be explained with care and patience, the whole of the declensions, pronouns, conjugations, the list of prepositions and conjunctions, interjections, some adverbs, the concords, and common rules of syntax, may be comprised with sufficient repetitions in about two or three hundred lessons of ten minutes each; that is to say, ten minutes application of the scholar in the presence of the teacher. A young boy should never be set to learn a lesson by heart when alone. Forty hours! Is this tedious? If you are afraid of losing time, begin a few months earlier; but begin when you will, forty hours is surely no great waste of time: the whole, or even half of this short time, is not spent in the labour of getting jargon by rote; each day some slight advance is made in the knowledge of words, and in the knowledge of their combinations. What we insist upon is, that *nothing should be done to disgust the pupil:* steady perseverance with uniform gentleness, will induce habit; and nothing should ever interrupt the regular return of the daily lesson. If absence, business, illness, or any other cause, prevent the attendance of the teacher, a substitute must be appointed; the idea of relaxation on Sunday, or a holyday, should never be permitted. In most public seminaries above one third, in some nearly one half, of the year is permitted to idleness: it is the comparison between severe labour and dissipation, that renders learning hateful.

Johnson is made to say by one of his female biographers,* that no child loves the person who teaches him Latin; yet the author of this chapter would not take all the doctor's fame, and all the lady's wit and riches, in exchange for the hourly, unfeigned, unremitting friendship, which he enjoys with a son who had no other master than his father. So far from being laborious or troublesome, he has found it an agreeable employment to instruct his children in grammar and the learned languages. In the midst of a variety of other occupations,

* Mrs. Piozzi.

half an hour every morning for many years, during the time of dressing, has been allotted to the instruction of boys of different ages in languages, and no other time has been spent in this employment. Were it asserted that these boys made *a reasonable progress*, the expression would convey no distinct meaning to the reader; we shall therefore mention an experiment tried this morning, November 8th, 1796, to ascertain the progress of one of these pupils. Without previous study, he translated twenty lines of the story of Ceyx and Alcyone, from Ovid, consulting the dictionary only twice: he was then desired to translate the passage which he had read into English verse; and in two or three hours he produced the following version. Much of the time was spent in copying the lines fairly, as this opportunity was taken of exciting his attention to writing and spelling, to associate the habit of application with the pleasure of voluntary exertion. The *curious* may, if they think it worth their while, see the various *readings* and corrections of the translation (See Chapter on Conversation, and anecdotes of Children), which were carefully preserved, not as "*Curiosities of Literature*," but for the sake of truth, and with a desire to show that the pupil had the patience to correct. A *genius* may hit off a few tolerable lines; but if a child is willing and able to criticise and correct what he writes, he shows that he selects his expressions from choice, and not from chance or imitation; and he gives to a judicious tutor the certain promise of future improvement.

"Far in a vale there lies a cave forlorn,
Which Phœbus never enters eve or morn;
The misty clouds inhale the pitchy ground.
And twilight lingers all the vale around.
No watchful cocks Aurora's beams invite;
No dogs nor geese, the guardians of the night:
No flocks nor herds disturb the silent plains;
Within the sacred walls mute quiet reigns,
And murmuring Lethe soothing sleep invites;
In dreams again the flying past delights:
From milky flowers that near the cavern grow,
Night scatters the collected sleep below."

S——, the boy who made this translation, was just ten years old; he had made but three previous attempts in versification; his reading in poetry had been some of Gay's fables, parts of the Minstrel, three odes of Gray,

the Elegy in a Country Churchyard, the Tears of Old May-day, and parts of the second volume of Dr. Darwin's Botanic Garden; Dryden's Translations of the fable of Ceyx and Alcyone he had never seen; the book had always been locked up. Phædrus and Ovid's Metamorphoses were the whole of his Latin erudition. These circumstances are mentioned thus minutely, to afford the inquisitive teacher materials for an accurate estimate of the progress made by our method of instruction. Perhaps most boys of S——'s age, in our great public seminaries, would, upon a similar trial, be found superior. Competition in the art of translation is not our object; our object is to show, that half an hour a day, steadily appropriated to grammar and Latin, would be sufficient to secure a boy of this age from any danger of ignorance in classical learning; and that the ease and shortness of his labour will prevent that disgust, which is too often induced by forced and incessant application. We may add, that some attention to the *manner* in which the pupils repeat their Latin lessons, has been found advantageous: as they were never put in bodily fear by the impatience of a pedagogue, they had leisure and inclination to read and recite, without awkward gestures and discordant tones. The whining tones and convulsive gestures often contracted by boys during the agony of repeating their long lessons, are not likely to be advantageous to the rising generation of orators. Practice, and the strong motive of emulation, may, in a public seminary, conquer these bad habits. After the pupil has learned to speak ill, he *may* be taught to speak well; but the chances are against him: and why should we have the trouble of breaking bad habits? It is much easier to prevent them. In private education, as the preceptor has less chance of curing his pupil of the habit of speaking ill, he should be peculiarly attentive to give the child constant habits of speaking and reading well. It is astonishing, that parents who are extremely intent upon the education of their children, should overlook some of the essential means of success. A young man with his head full of Latin and law, will make but a poor figure at the bar or in Parliament, if he cannot enunciate distinctly, and if he cannot speak good English extempore, or produce his learning and arguments with grace and propriety. It is in vain to expect that a boy should speak well in

public, who cannot, in common conversation, utter three connected sentences without a false concord or a provincial idiom; he may be taught with much care and cost to speak *tripod* sentences;* but bring the young orator to the test, bring him to actual business, rouse any of his passions, throw him off his guard, and then listen to his language; he will forget instantly his reading-master, and all his rules of pronunciation and rhetoric, and he will speak the language to which he has been most accustomed. No master will then be near him to regulate the pitch and tones of his voice. We cannot believe that even Caius Gracchus could, when he was warmed with passion, listen to Licinius's pitchpipe.† Example, and constant attention to their manner of speaking in common conversation, we apprehend to be the most certain methods of preparing young men for public speakers. Much of the time that is spent in teaching boys to walk upon stilts, might be more advantageously employed in teaching them to walk well without them. It is all very well while the pupil is under the protection of his preceptor. The actor on the stage is admired while he is elevated by the cothurnus; but young men are not to exhibit their oratorical talents always with the advantages of stage effect and decorations. We should imagine, that much of the diffidence felt by young men of abilities, when they first rise to speak in public, may be attributed to their immediate perception of the difference between scholastic exhibitions and the real business of life; they feel that they have learned to speak two languages, which must not, on any account, be mixed together; the one, the vulgar language of common conversation; the other, the refined language of oratorical composition: the first they are most inclined to use when they are agitated; and they are agitated when they rise to speak before numbers: consequently there is an immediate struggle between custom and institution. Now, a young man, who in common conversation in his own family has never been accustomed to hear or to speak vulgar or ungrammatical language, cannot possibly apprehend that he shall suddenly utter ridiculous expressions; he knows, that, if he speak at all, he shall at least speak good English; and he is not afraid, that, if

* See Blair. † See Plutarch.

he be pursued, he shall be obliged to throw away his cumbrous stilts. The practice of speaking in public, we are sensible, is a great advantage; but the habit of speaking accurately in private is of still greater consequence: this habit depends upon the early and persevering care of the parent and the preceptor. There is no reason why children should not be made at the same time good scholars and good speakers; nor is there any reason why boys, while they learn to write Latin, should be suffered to forget how to write English.

It would be a great advantage to the young classical scholar, if his Latin and English literature were mixed; the taste for ancient authors and for modern literature ought to be cultivated at the same time; and the beauties of composition, characteristic of different languages, should be familiarized to the student. Classical knowledge and taste afford such continual and innocent sources of amusement, that we should be extremely sorry that any of our pupils should not enjoy them in their fullest extent; but we do not include a talent for Latin composition among the *necessary* accomplishments of a gentleman. There are situations in life, where facility and elegance in writing Latin may be useful, but such situations are not common; when a young man is intended for them, he may be trained with more particular assiduity to this art; perhaps for this purpose the true Busbyean method is the best. The great Latin and Greek scholars of the age have no reason to be displeased by the assertion, that classical proficiency equal to their own is not a *necessary* accomplishment in a gentleman; if their learning become more rare, it may thence become more valuable. We see no reason why there should not be Latinists as well as special pleaders.

We have not laid down any course of classical study: those who consider the order in which certain authors are read, as of material consequence in the education of scholars, may consult Milton, Mrs. Macauley, "Milne's Wellbred Scholar," &c., where they will find precise directions.

We have *lately* seen a collection of exercises for boys,* which in some measure supplies the defect of Mr. Garretson's curious performance. We wish most

* Valpy's Exercises.

earnestly that dictionaries were improved. The author of "Stemmata Latinitatis" has conferred an essential service on the public; but still there is wanting a dictionary for schools, in which elegant and proper English might be substituted for the barbarous translations now in use. Such a dictionary could not be compiled, we should think, without an attention to the course of books that are most commonly used in schools. The first meanings given in the dictionary should suit the first authors that a boy reads; this may probably be a remote or metaphoric meaning: then the radical word should be mentioned; and it would not cost a master any great trouble to trace the genealogy of words to the parent stock.

Corderi is a collection of such mean sentences, and uninstructive dialogue, as to be totally unfit for boys. Comenius's "Visible World Displayed" is far superior, and might, with proper alterations and better prints, become a valuable *English* school-book. Both these books were intended for countries where the Latin language was commonly spoken, and consequently they are filled with the terms necessary for domestic life and conversation; for this very reason they are not good introductions to the classics. Selections from Bailey's Phædrus will be proper for young beginners, upon account of the glossary. We prefer this mode of assisting them with glossaries to the use of translations, because they do not induce indolent habits, and yet they prevent the pupil from having unnecessary labour. Translations always give the pupil more trouble in the end than they save in the beginning. The glossary to Bailey's Phædrus, which we have just mentioned, wants much to be modernized, and the language requires to be improved. Mr. Valpy's "Select Sentences" would be much more useful if they had a glossary annexed. As they are, they will, however, be useful after Phædrus. Ovid's Metamorphoses, with all its monstrous faults, appears to be the best introduction to the Latin classics, and to heathen mythology. Norris's Ovid may be safely put into the hands of children, as it is a selection of the least exceptionable fables. To accustom boys to read poetry and prose nearly at the same period, is advantageous. Cornelius Nepos, a *crabbed* book, but useful from its brevity, and from its being a proper introduction to Grecian and Roman history, may be

read nearly at the same time with Ovid's Metamorphoses. After Ovid, the pupil may begin Virgil, postponing some of the Eclogues, and all the Georgics.

We recommend that some English books should be put into the hands of boys while they are going through Phædrus, Ovid, and Cornelius Nepos, which may suit with the ideas they acquire from these Latin authors. Plutarch's Lives, for instance, will be useful and interesting. When we mention Plutarch's Lives, we cannot help recollecting how many great people have acknowledged the effect of this book in their early education. Charles the Twelfth, Rousseau, Madame Roland, Gibbon, we immediately remember, and we are sure we have noticed many others. An abridgment of Plutarch, by Mrs. Helme, which we have looked into, appears (the preface excepted) to be well written; and we see another abridgment of Plutarch advertised, which we hope may prove serviceable: good prints to a Plutarch for children, would be very desirable.

As an English introduction to mythology, we recommend the first volume of Lord Chesterfield's Letters as a most elegant view of heathen mythology. But if there be any danger that the first volume should introduce the remainder of Lord Chesterfield's work to the inexperienced reader, we should certainly forbear the experiment: it would be far better for a young man never to be acquainted with a single heathen deity, than to purchase Lord Chesterfield's classical knowledge at the hazard of contamination from his detestable system of morals. Without his lordship's assistance, Mrs. Monsigny's Mythology can *properly* initiate the young pupil of either sex into the mysteries of ancient fables. The notes to Potter's Æschylus are also well suited to our purpose. In Dr. Darwin's "Botanic Garden," there are some beautiful poetic allusions to ancient gems and ancient fables, which must fix themselves in the memory or in the imagination of the pupil. The sooner they are read, the better; we have felt the advantage of putting them into the hands of a boy of nine or ten years old. The ear should be formed to English, as well as to Latin poetry.

Classical poetry, without the knowledge of mythology, is unintelligible: if children study the one, they must learn the other. Divested of the charms of poetry, and considered without classical prepossession, mythol-

ogy presents a system of crimes and absurdities, which no allegorical, metaphysical, or literal interpreters of modern times, can perfectly reconcile to common sense or common morality; but our poets have naturalized ancient fables, so that mythology has become essential even to modern literature. The associations of taste, though arbitrary, are not easily changed in a nation whose literature has attained to a certain pitch of refinement, and whose critical judgments must consequently have been for some generations traditional. There are subjects of popular allusion, which poets and orators regard as common property; to dispossess them of these seems impracticable, after time has sanctioned the prescriptive right. But new knowledge, and the cultivation of new sciences, present objects of poetic allusion, which, skilfully managed by men of inventive genius, will oppose to the habitual reverence for antiquity, the charms of novelty united to the voice of philosophy.*

In education we must, however, consider the actual state of manners in that world in which our pupils are to live, as well as our wishes or our hopes of its gradual improvement.† With a little care, preceptors may manage so as to teach mythology without in the least injuring their pupils. Children may be familiarized to the strange manners and strange personages of ancient fable, and may consider them as a set of beings who are not to be judged by any rules of morality, and who have nothing in common with ourselves. The caricature of some of the passions, perhaps, will not shock children who are not used to their natural appearance; they will pass over the stories of love and jealousy merely because they do not understand them. We should rather leave them completely unintelligible, than attempt, like Mr. Riley, in his mythological pocket dictionary for youth, to elucidate the whole at once, by assuring children that Saturn was Adam, that Atlas is Moses, and his brother Hesperus, Aaron; that Vertumnus and Pomona were Boaz and Ruth; that Mars *corresponds* with Joshua; that Apollo *accords* with David, since they both played

* See Darwin's Poetry.

† Since the above was written, we have seen a letter from Dr. Aikin to his son on the *morality* and *poetic merit* of the fable of Circe, which convinces us that the observations that we have hazarded are not premature.

upon the harp; that Mercury can be no other than our archangel Michael, since they both have wings on their arms and feet; that, in short, to complete the concordance, Momus is a striking likeness of Satan. The ancients, Mr. Riley allows, have so much disfigured these personages, that it is hard to know many of the portraits again at first sight; however, he is persuaded that "the young student will find a peculiar gratification in tracing the likeness," and he has kindly furnished us with a catalogue to explain the exhibition, and to guide us through his new pantheon.

As books of reference, the convenient size and compressed information of *pocket* mythological dictionaries, will recommend them to general use; but we object to the miserable prints with which they are sometimes disgraced. The first impression made upon the imagination* of children, is of the utmost consequence to their future taste. The beautiful engravings† in Spence's Polymetis, will introduce the heathen deities in their most graceful and picturesque forms to the fancy. The language of Spence, though classical, is not entirely free from pedantic affectation, and his dialogues are, perhaps, too stiff and longwinded for our young pupils. But a parent or preceptor can easily select the useful explanations; and in turning over the prints, they can easily associate some general notion of the history and attributes of the gods and goddesses with their forms: the little eager spectators will, as they crowd round the book, acquire imperceptibly all the necessary knowledge of mythology, imbibe the first pleasing ideas of taste, and store their imagination with classic imagery. The same precautions that are necessary to educate the eye, are also necessary to form the ear and understanding of taste. The first mythological descriptions which our pupils read should be the best in their kind. Compare the following account of Europa in a pocket dictionary, with her figure in a poetical gem—"Europa, the daughter of Agenor, king of the Phœnicians, and sister of Cadmus. This princess was so beautiful, that, they say, one of the companions of Juno had robbed her of a pot of paint to bestow on this lady, which rendered her so handsome. She was beloved of Jupiter, who assumed

* Chapter on Imagination.

† We speak of these engravings as *beautiful*, for the times in which they were done; modern artists have arrived at higher perfection.

the shape of a bull to run away with her, swam over the sea with her on his back, and carried her into that part of the world now called Europe, from her name." So far the dictionary; now for the poet.

"Now lows a milk-white bull on Afric's strand,
And crops with dancing head the daisi'd land;
With rosy wreaths Europa's hand adorns
His fringed forehead and his pearly horns;
Light on his back the sportive damsel bounds,
And, pleas'd, he moves along the flowery grounds;
Bears with slow step his beauteous prize aloof,
Dips in the lucid flood his ivory hoof;
Then wets his velvet knees, and wading, laves
His silky sides, amid the dimpling waves.
While her fond train with beckoning hands deplore,
Strain their blue eyes, and shriek along the shore:
Beneath her robe she draws her snowy feet,
And, half reclining on her ermine seat,
Round his rais'd neck her radiant arms she throws,
And rests her fair cheek on his curled brows;
Her yellow tresses wave on wanton gales,
And high in air, her azure mantle sails."*

CHAPTER XIV.

ON GEOGRAPHY AND CHRONOLOGY.

The usual manner of teaching Geography and Chronology may, perhaps, be necessary in public seminaries, where a number of boys are to learn the same thing at the same time; but what is learned in this manner is not permanent; something besides merely committing names and dates to the memory, is requisite to make a useful impression upon the memory. For the truth of this observation, an appeal is made to the reader. Let him recollect, whether the Geography and Chronology which he learned while a boy are what he now remembers—Whether he has not obtained his present knowledge from other sources than the tasks of early years. When business or conversation calls upon us to furnish

* Darwin. See Botanic Garden.

facts accurate as to place and time, we retrace our former heterogeneous acquirements, and select those circumstances which are connected with our present pursuit; and thus we form, as it were, a nucleus round which other facts insensibly arrange themselves. Perhaps no two men in the world, who are well versed in these studies, connect their knowledge in the same manner. Relation to some particular country, some favourite history, some distinguished person, forms the connexion which guides our recollection, and which arranges our nomenclature. By attending to what passes in our own minds, we may learn an effectual method of teaching without pain, and without any extraordinary burden to the memory, all that is useful of these sciences. The details of history should be marked by a few chronological eras, and by a few general ideas of geography. When these have been once completely associated in the mind, there is little danger of their being ever disunited: the sight of any country will recall its history, and even from representations in a map, or on the globe, when the mind is awakened by any recent event, a long train of concomitant ideas will recur.

The use of technical helps to the memory has been condemned by many, and certainly when they are employed as artifices to supply the place of real knowledge, they are contemptible; but when they are used as indexes to facts that have been really collected in the mind; when they serve to arrange the materials of knowledge in appropriate classes, and to give a sure and rapid clew to recollection, they are of real advantage to the understanding. Indeed, they are now so common, that pretenders cannot build the slightest reputation upon their foundation. Were an orator to attempt a display of long chronological accuracy, he might be wofully confounded by his opponent's applying at the first pause,

*Elsluk he would have said!

Ample materials are furnished in Gray's Memoria Technica, from which a short and useful selection may be made, according to the purposes which are in view. For children, the little ballad of The Chapter of Kings will not be found beneath the notice of mothers who

* See Gray's Memoria Technica, and the Critic.

attend to education. If the technical terminations of Gray are inserted, they will never be forgotten, or may be easily recalled.* We scarcely ever forget a ballad if the tune is popular.

For pupils at a more advanced age, it will be found advantageous to employ technical helps of a more scientific construction. Priestley's Chart of Biography may, from time to time, be hung in their view. Smaller charts, upon the same plan, might be provided with a few names as landmarks; these may be filled up by the pupil with such names as he selects from history; they may be bound in octavo, like maps, by the middle, so as to unfold both ways.—Thirty-nine inches by nine will be a convenient size. Prints, maps, and medals, which are part of the constant furniture of a room, are seldom attended to by young people; but when circumstances excite an interest upon any particular subject, then is the moment to produce the symbols which record and communicate knowledge.

Mrs. Radcliffe, in her judicious and picturesque tour through Germany, tells us, that in passing through the apartments of a palace which the Archdutchess Maria Christiana, the sister of the late unfortunate Queen of France, had left a few hours before, she saw spread upon a table a map of all the countries then included in the seat of the war. The positions of the several corps of the allied armies were marked upon this chart with small pieces of various coloured wax. Can it be doubted, that the strong interest which this princess must have taken in the subject, would for ever impress upon her memory the geography of this part of the world?

How many people are there who have become geographers during the progress of a war. The art of creating an interest in the study of geography, depends upon the dexterity with which passing circumstances are seized by a preceptor in conversation. What are

* Instead of

William the Conqueror long did reign,
And William his son by an arrow was slain;

Read,

William the Con*sau* long did reign,
And Ruf*koi* his son by an arrow was slain.

And so on from Gray's Memoria Technica to the end of the chapter.

maps or medals, statues or pictures, but technical helps to memory? If a mother possess good prints, or casts of ancient gems, let them be shown to any persons of taste and knowledge who visit her; their attention leads that of our pupils; imitation and sympathy are the parents of taste, and taste reads in the monuments of art whatever history has recorded.

In the Adele and Theodore of Madame de Silleri, a number of adventitious helps are described for teaching history and chronology. There can be no doubt that these are useful; and although such an apparatus cannot be procured by private families, fortunately the print-shops of every provincial town, and of the capital in particular, furnish even to the passenger a continual succession of instruction. Might not prints, assorted for the purposes which we have mentioned, be *lent* at circulating libraries?

To assist our pupils in geography, we prefer a globe to common maps. Might not a cheap, portable, and convenient globe be made of oiled silk, to be inflated by a common pair of bellows? Mathematical exactness is not requisite for our purpose, and though we could not pretend to the precision of our best globes, yet a balloon of this sort would compensate by its size and convenience for its inaccuracy. It might be hung by a line from its north pole, to a hook screwed into the horizontal architrave of a door or window; and another string from its south pole might be fastened at a proper angle to the floor, to give the requisite elevation to the axis of the globe. An idea of the different projections of the sphere may be easily acquired from this globe in its flaccid state, and any part of it might be consulted as a map, if it were laid upon a convex board of a convenient size. Impressions from the plates which are used for common globes might be taken to try this idea without any great trouble or expense; but we wish to employ a much larger scale, and to have them five or six feet diameter. The inside of a globe of this sort might be easily illuminated, and this would add much to the novelty and beauty of its appearance.

In the country, with the assistance of a common carpenter and plasterer, a large globe of lath and plaster may be made for the instruction and entertainment of a numerous family of children. Upon this they should leisurely delineate, from time to time, by their given

latitudes and longitudes, such places as they become acquainted with in reading or conversation. The capital cities, for instance, of the different countries of Europe, the rivers and the neighbouring towns, until at last the outline might be added: for the sake of convenience, the lines, &c. may be first delineated upon a piece of paper, from which they may be accurately transferred to their proper places on the globe, by the intervention of blackleaded paper, or by pricking the lines through the paper, and pouncing powdered blue through the holes upon the surface of the globe.

We enter into this detail because we are convinced that every addition to the active manual employment of children is of consequence, not only to their improvement, but to their happiness.

Another invention has occurred to us for teaching geography and history together. Priestley's Chart of History, though constructed with great ingenuity, does not invite the attention of young people: there is an intricacy in the detail which is not obvious at first. To remedy what appears to us a difficulty, we propose that eight-and-twenty, or perhaps thirty octavo maps of the globe should be engraved; upon these should be traced, in succession, the different situations of the different countries of the world, as to power and extent, during each respective century: different colours might denote the principal divisions of the world in each of these maps; the same colour always denoting the same country, with the addition of one strong colour, red, for instance, to distinguish that country which had at each period the principal dominion. On the upper and lower margin in these maps, the names of illustrious persons might be engraved in the manner of the biographical chart; and the predominant opinions of each century should also be inserted. Thus history, chronology, and geography, would appear at once to the eye in their proper order and regular succession, divided into centuries and periods, which easily occur to recollection.

We forbear to expatiate upon this subject, as it has not been actually submitted to experiment; carefully avoiding, in the whole of this work, to recommend any mode of instruction which we have not actually put in practice. For this reason, we have not spoken of the Abbé Gaultier's method of teaching geography, as we

have only been able to obtain accounts of it from the public papers, and from reviews; we are, however, disposed to think favourably beforehand of any mode which unites amusement with instruction. We cannot forbear recommending, in the strongest manner, a few pages of Rollin in his "Thoughts upon Education,"* which we think contains an excellent specimen of the manner in which a well-informed preceptor might lead his pupils a geographical, historical, botanical, and physiological tour upon the artificial globe.

We conclude this chapter of hints by repeating what we have before asserted, that though technical assistance may be of ready use to those who are really acquainted with that knowledge to which it refers, it never can supply the place of accurate information.

The causes of the rise and fall of empires, the progress of human knowledge, and the great discoveries of superior minds, are the real links which connect the chain of political knowledge.

CHAPTER XV.

ON ARITHMETIC.

The man who is ignorant that two and two make four, is stigmatized with the character of hopeless stupidity; except, as Swift has remarked, in the arithmetic of the customs, where two and two do not always make the same sum.

We must not judge of the understanding of a child by this test, for many children of quick abilities do not immediately assent to this proposition when it is first laid before them. "Two and two make four," says the tutor. "Well, child, why do you stare so?"

The child stares because the word *make* i in this sentence used in a sense which is quite new to him; he knows what it is to make a bow, and to make a noise; but how this active verb is applicable in the present case, where there is no agent to perform the action, he

* Page 24.

cannot clearly comprehend. "Two and two *are* four" is more intelligible; but even this assertion, the child, for want of a distinct notion of the sense in which the word *are* is used, does not understand.

"Two and two *are called* four," is, perhaps, the most accurate phrase a tutor can use; but even these words will convey no meaning until they have been associated with the pupil's perceptions. When he has once perceived the combination of the numbers with real objects, it will then be easy to teach him that the words *are called*, *are*, and *make*, in the foregoing proposition, are synonymous terms. We have chosen the first simple instance we could recollect, to show how difficult the words we generally use in teaching arithmetic must be to our young pupils. It would be an unprofitable task to enumerate all the puzzling technical terms which, in their earliest lessons, children are obliged to hear, without being able to understand.

It is not from want of capacity that so many children are deficient in arithmetical skill; and it is absurd to say, "such a child has no genius for arithmetic. Such a child cannot be made to comprehend any thing about numbers." These assertions prove nothing, but that the persons who make them are ignorant of the art of teaching. A child's seeming stupidity in learning arithmetic, may, perhaps, be a proof of intelligence and good sense. It is easy to make a boy, who does not reason, repeat by rote any technical rules which a common writingmaster, with magisterial solemnity, may lay down for him; but a child who reasons will not be thus easily managed: he stops, frowns, hesitates, questions his master, is wretched and refractory, until he can discover why he is to proceed in such and such a manner; he is not content with seeing his preceptor make figures and lines upon a slate, and perform wondrous operations with the self-complacent dexterity of a conjurer. A sensible boy is not satisfied with merely seeing the total of a given sum, or the answer to a given question *come out right*; he insists upon knowing why it is right. He is not content to be led to the treasures of science blindfold; he would tear the bandage from his eyes, that he may know the way to them again.

That many children, who have been thought to be slow in learning arithmetic, have, after their escape from the hands of pedagogues, become remarkable for

their quickness, is a fact sufficiently proved by experience. We shall only mention one instance, which we happened to meet with while we were writing this chapter. John Ludwig, a Saxon peasant, was dismissed from school when he was a child, after four years ineffectual struggle to learn the common rules of arithmetic. He had been, during this time, beaten and scolded in vain. He spent several subsequent years in common country labour, but at length some accidental circumstances excited his ambition, and he became expert in all the common rules, and mastered the rule of three and fractions, by the help of an old school-book, in the course of one year. He afterward taught himself geometry, and raised himself, by the force of his abilities and perseverance, from obscurity to fame.

We should like to see the book which helped Mr. Ludwig to conquer his difficulties. Introductions to arithmetic are, often, calculated rather for adepts in science than for the ignorant. We do not pretend to have discovered any shorter method than what is common, of teaching these sciences; but, in conformity with the principles which are laid down in the former part of this work, we have endeavoured to teach their rudiments without disgusting our pupils, and without habituating them to be contented with merely technical operations.

In arithmetic, as in every other branch of education, the principal object should be, to preserve the understanding from implicit belief; to invigorate its powers; to associate pleasure with literature; and to induce the laudable ambition of progressive improvement.

As soon as a child can read he should be accustomed to count, and to have the names of numbers early connected in his mind with the combinations which they represent. For this purpose, he should be taught to add first by things, and afterward by signs or figures. He should be taught to form combinations of things by adding them together one after another. At the same time that he acquires the names that have been given to these combinations, he should be taught the figures or symbols that represent them. For example, when it is familiar to the child that one almond and one almond are called two almonds; that one almond and two almonds are called three almonds, and so on, he should be taught to distinguish the figures that represent these

assemblages; that three means one and two, &c. Each operation of arithmetic should proceed in this manner, from individuals to the abstract notation of signs.

One of the earliest operations of the reasoning faculty is abstraction; that is to say, the power of classing a number of individuals under one name. Young children call strangers either men or women; even the most ignorant savages* have a propensity to generalize.

We may err either by accustoming our pupils too much to the consideration of tangible substances when we teach them arithmetic, or by turning their attention too much to signs. The art of forming a sound and active understanding, consists in the due mixture of facts and reflection. Dr. Reid has, in his "Essay on the Intellectual Powers of Man," page 297, pointed out, with great ingenuity, the admirable economy of nature in limiting the powers of reasoning during the first years of infancy. This is the season for cultivating the senses; and whoever, at this early age, endeavours to force the tender shoots of reason, will repent his rashness.

In the chapter "on Toys," we have recommended the use of plain, regular solids, cubes, globes, &c., made of wood, as playthings for children, instead of uncouth figures of men, women, and animals. For teaching arithmetic, half inch cubes, which can be easily grasped by infant fingers, may be employed with great advantage; they can be easily arranged in various combinations; the eye can easily take in a sufficient number of them at once, and the mind is insensibly led to consider the assemblages in which they may be grouped, not only as they relate to number, but as they relate to quantity or shape; besides, the terms which are borrowed from some of these shapes, as squares, cubes, &c., will become familiar. As these children advance in arithmetic to square or cube, a number will be more intelligible to them than to a person who has been taught these words merely as the formula of certain rules. In arithmetic, the first lessons should be short and simple; two cubes placed *above* each other will soon be called two; if placed in any other situations near each other, they will still be called two; but it is advantageous to accustom our little

* See a strange instance quoted by Mr. Stewart, "On the Human Mind."

pupils to place the cubes with which they are taught in succession, either by placing them upon one another, or laying them in columns upon a table, beginning to count from the cube next to them, as we cast up in addition. For this purpose, a board about six inches long and five broad, divided into columns perpendicularly by slips of wood three eighths of an inch wide and one eighth of an inch thick, will be found useful; and if a few cubes of colours *different from those already mentioned*, with numbers on their six sides, are procured, they may be of great service. Our cubes should be placed, from time to time, in a different order, or promiscuously; but when any arithmetical operations are to be performed with them, it is best to preserve the established arrangement.

One cube and one other, are called two.

Two what?

Two cubes.

One glass and one glass, are called two glasses. One raisin and one raisin, are called two raisins, &c. One cube and one glass, are called what? *Two things*, or two.

By a process of this sort, the meaning of the abstract term *two* may be taught. A child will perceive that the word *two* means the same as the words *one and one;* and when we say one and one are called two, unless he is prejudiced by something else that is said to him, he will understand nothing more than that there are two names for the same thing.

"One, and one, and one, are called three," is the same as saying "that three is the name for one, and one, and one."—"Two and one are three," is also the same as saying "that three is the name of *two and one*." Three is also the name of one and two; the word three has, therefore, three meanings; it means one, and one, and one; *also*, two and one; also, one and two. He will see that any two of the cubes may be put together, as it were, in one parcel, and that this parcel may be called *two;* and he will also see that this parcel, when joined to another single cube, will *make* three, and that the sum will be the same, whether the single cube or the two cubes be named first.

In a similar manner, the combinations which form *four* may be considered. One, and one, and one, and one, are four.

One and three are four.

Two and two are four.

Three and one are four.

All these assertions mean the same thing, and the term *four* is equally applicable to each of them: when, therefore, we say that two and two are four, the child may be easily led to perceive, and indeed to *see*, that it means the same thing as saying one *two* and one *two*, which is the same thing as saying two *twos*, or saying the word *two* two times. Our pupil should be suffered to rest here; and we should not, at present, attempt to lead him farther towards that compendious method of addition which we call multiplication; but the foundation is laid by giving him this view of the relation between two and two in forming four.

There is an enumeration in the note* of the different

NOTE.

		1							1		
* Two is		1							1	1	
the		—							1	2	
name for		2							—	—	
									3	3	
1											
1	1										
1	1	1	2								
1	2	3	2								
—	—	—	—								
4	4	4	4								
1											
1	1										
1	1	1		1							
1	1	1	1	2	3						
1	2	3	4	2	2						
—	—	—	—	—	—						
5	5	5	5	5	5						
1											
1	1										
1	1	1		1							
1	1	1	1	1	2	1		1			
1	1	1	1	2	2	3	4	2	3		
1	2	3	4	2	2	2	2	3	3		
—	—	—	—	—	—	—	—	—	—		
6	6	6	6	6	6	6	6	6	6		

combinations which compose the rest of Arabic notation, which consists only of nine characters.

Before we proceed to the number ten, or to the new series of enumeration which succeeds to it, we should make our pupils perfectly masters of the combinations

NOTE.

1														
1	1													
1	1	1				1								
1	1	1	1			1	1	1						
1	1	1	1	1		1	2	1	1		2	1		
1	1	1	1	1	1	2	2	3	4	5	2	3	4	
1	2	3	4	5	6	2	2	2	2	2	3	3	3	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	

1														
1	1													
1	1	1					1							
1	1	1	1				1	1		1				
1	1	1	1	1			1	1	2	1	1	1		
1	1	1	1	1	1		1	2	2	1	2	1	2	1
1	1	1	1	1	1	1	2	2	2	2	2	3	3	4
1	2	3	4	5	6	7	2	2	2	3	3	3	3	3
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

	1													
	1	2	1		1									
5	2	2	3	4	2	2								
3	4	4	4	4	5	6								
8	8	8	8	8	8	8								

1														
1	1													
1	1	1						1						
1	1	1	1					1	1		1			
1	1	1	1	1				1	1	1	1	1		1
1	1	1	1	1	1			1	1	2	1	1	2	1
1	1	1	1	1	1	1		1	2	2	1	2	2	1
1	1	1	1	1	1	1	1	2	2	2	2	2	2	3
1	2	3	4	5	6	7	8	2	2	2	3	3	3	3
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

which we have mentioned, both in the direct order in which they are arranged, and in various modes of succession; by these means, not only the addition, but the subtraction, of numbers as far as nine, will be perfectly familiar to them.

It has been observed before, that counting by realities and by signs should be taught at the same time, so that the ear, the eye, and the mind should keep pace with one another; and that technical habits should be acquired without injury to the understanding. If a child begins between four and five years of age, he may be allowed half a year for this essential preliminary step in arithmetic; four or five minutes' application every day, will be sufficient to teach him not only the relations of the first decade in numeration, but also how to write figures with accuracy and expedition.

The next step is by far the most difficult in the science of arithmetic; in treatises upon the subject, it is concisely passed over under the title of Numeration; but it requires no small degree of care to make it intelligible to children, and we therefore recommend, that besides direct instruction upon the subject, the child should be led, by degrees, to understand the nature of classification in general. Botany and natural history, though they are not pursued as sciences, are, notwithstanding, the daily occupation and amusement of children, and they supply constant examples of classification. In conversation, these may be familiarly pointed out; a grove, a flock, &c., are constantly before the eyes of our pupil, and he comprehends as well as we do what is meant by two groves, two flocks, &c. The trees that form the grove are each of them individuals; but let their numbers be what they may when they are considered as a grove, the grove is but one, and may be thought of and spoken of distinctly, without any relation to the number of single trees which it contains. From these and similar

NOTE.

						1							
1		1				1	1			1			
2	3	1	2	1		1	2	1		1	2	1	
3	3	4	4	5	6	2	2	4	5	2	2	2	2
3	3	3	3	3	3	4	4	4	4	5	5	6	7
9	9	9	9	9	9	9	9	9	9	9	9	9	9

observations, a child may be led to consider *ten* as the name for a *whole*, an *integer;* a one, which may be represented by the figure (1): this same figure may also stand for a hundred or a thousand, as he will readily perceive hereafter. Indeed, the term one hundred will become familiar to him in conversation long before he comprehends that the word *ten* is used as an aggregate term, like a dozen, or a thousand. We do not use the word ten as the French do *une dizaine;* ten does not, therefore, present the idea of an integer till we learn arithmetic. This is a defect in our language, which has arisen from the use of duodecimal numeration; the analogies existing between the names of other numbers in progression are broken by the terms eleven and twelve. *Thirteen, fourteen,* &c., are so obviously compounded of three and ten, and four and ten, as to strike the ears of children immediately; and when they advance as far as twenty, they readily perceive that a new series of units begins, and proceeds to thirty; and that thirty, forty, &c., mean three tens, four tens, &c. In pointing out these analogies to children, they become interested and attentive; they show that species of pleasure which arises from the perception of *aptitude*, or of truth. It can scarcely be denied that such a pleasure exists independently of every view of utility and fame; and when we can once excite this feeling in the minds of our young pupils at any period of their education, we may be certain of success.

As soon as distinct notions have been acquired of the manner in which a collection of ten units becomes a new unit of a higher order, our pupil may be led to observe the utility of this invention by various examples, before he applies it to the rules of arithmetic. Let him count as far as ten with black pebbles,* for instance; let him lay aside a white pebble to represent the collection of ten; he may count another series of ten black pebbles, and lay aside another white one; and so on, till he has collected ten white pebbles: as *each* of the ten white pebbles represents ten black pebbles, he will have counted one hundred; and the ten white pebbles may now be represented by a single red one, which will stand for one hundred. This large number, which it takes up so much time to count, and which could not be compre-

* The word calculate is derived from the Latin calculus, a pebble.

hended at one view, is represented by a single sign. Here the difference of colour forms the distinction: difference in shape or size would answer the same purpose, as in the Roman notation, X for ten, L for fifty, C for one hundred, &c. All this is fully within the comprehension of a child of six years old, and will lead him to the value of written figures by the *place* which they hold when compared with one another. Indeed, he may be led to invent this arrangement, a circumstance which would encourage him in every part of his education. When once he clearly comprehends that the third place, counting from the right, contains only figures which represent hundreds, &c., he will have conquered one of the greatest difficulties of arithmetic. If a paper ruled with several perpendicular lines, a quarter of an inch asunder, be shown to him, he will see that the spaces or columns between these lines would distinguish the value of figures written in them, without the use of the sign (0), and he will see that (0) or zero, serves only to mark the place or situation of the neighbouring figures.

An idea of decimal arithmetic, but without detail, may now be given to him, as it will not appear extraordinary to *him* that a unit should represent ten by having its place or column changed; and nothing more is necessary in decimal arithmetic, than to consider that figure which represented, at one time, an integer, or whole, as representing at another time the number of *tenth parts* into which that whole may have been broken.

Our pupil may next be taught what is called numeration, which he cannot fail to understand, and in which he should be frequently exercised. Common addition will be easily understood by a child who distinctly perceives that the perpendicular columns, or places in which figures are written, may distinguish their value under various different denominations, as gallons, furlongs, shillings, &c. We should not tease children with long sums in avoirdupois weight, or load their frail memories with tables of long-measure, and dry-measure, and ale-measure in the country and ale-measure in London; only let them cast up a few sums in different denominations, with the tables before them, and let the practice of addition be preserved in their minds by short sums every day, and when they are between six and seven

years old, they will be sufficiently masters of the first and most useful rule of arithmetic.

To children who have been trained in this manner, subtraction will be quite easy; care, however, should be taken to give them a clear notion of the mystery of *borrowing* and *paying*, which is inculcated in teaching subtraction.

From 94
Subtract 46

"Six from four I can't, but six from ten and four remains; four and four *is* eight."

And then, "One that I borrowed and four are five, five from nine, and four remains."

This is the formula; but is it ever explained—or can it be? Certainly not without some alteration. A child sees that six cannot be subtracted (taken) from four: more especially a child who is familiarly acquainted with the component parts of the names six and four: he sees that the sum 46 is less than the sum 94, and he knows that the lesser sum may be subtracted from the greater; but he does not perceive the means of separating them figure by figure. Tell him, that though six cannot be deducted from four, yet it can from fourteen, and that if one of the tens which are contained in the (9) ninety in the uppermost row of the second column, be supposed to be taken away, or borrowed, from the ninety, and added to the four, the nine will be reduced to 8 (eighty), and the four will become fourteen. *Our* pupil will comprehend this most readily; he will see that 6, which could not be subtracted from 4, may be subtracted from fourteen, and he will remember that the 9 in the next column is to be considered as only (8). To avoid confusion, he may draw a stroke across the (9) and write 8 over* it ($\frac{8}{9}$), and proceed to the remainder of the operation. This method for beginners is certainly very distinct, and may, for some time, be employed with advantage; and after its rationale has become familiar, we may explain the common method which depends upon this consideration.

"If one number is to be deducted from another, the remainder will be the same, whether we add any given

* This method is recommended in the Cours de Math. par Camus, p. 38.

number to the smaller number, or take away the same given number from the larger." For instance:

Let the larger number be . . .	9
And the smaller	4
If you deduct 3 from the larger it will be	6
From this subtract the smaller . .	4
The remainder will be . . .	2
Or if you add 3 to the smaller number, it will be	7
Subtract this from the larger number .	9
	7
The remainder will be . . .	2

Now in the common method of subtraction, the *one* which is borrowed is taken from the uppermost figure in the adjoining column; and instead of altering that figure to *one* less, we add one to the lowest figure, which, as we have just shown, will have the same effect. The terms, however, that are commonly used in performing this operation, are improper. To say "one that I borrowed, and four" (meaning the lowest figure in the adjoining column) implies the idea that what was borrowed is now to be repaid to that lowest figure, which is not the fact. As to multiplication, we have little to say. Our pupil should be furnished, in the first instance, with a table containing the addition of the different units which form the different products of the multiplication table: these he should, from time to time, add up as an exercise in addition; and it should be frequently pointed out to him, that adding these figures so many times over is the same as multiplying them by the number of times that they are added; as three times 3 means 3 added three times. Here one of the figures represents a quantity, the other does not represent a quantity; it denotes nothing but the times, or frequency of repetition. Young people, as they advance, are apt to confound these signs, and to imagine, for instance, in the rule of three, &c., that the sums which they multiply together mean quantities; that 40 yards of linen may be multiplied by three and sixpence, &c.—an idea from which the misstatements in sums that are intricate, frequently arise.

We have heard that the multiplication table has been

set, like The Chapter of Kings, to a cheerful tune. This is a species of technical memory which we have long practised, and which can do no harm to the understanding; it prevents the mind from no beneficial exertion, and may save much irksome labour. It is certainly to be wished, that our pupil should be expert in the multiplication table; if the cubes which we have formerly mentioned be employed for this purpose, the notion of *squaring* figures will be introduced at the same time that the multiplication table is committed to memory.

In division, what is called the Italian method of arranging the divisor and quotient appears to be preferable to the common one, as it places them in such a manner as to be easily multiplied by each other, and as it agrees with algebraic notation.

The usual method is this:

Divisor

71)83467(1175

Italian method:

Dividend

83467	71
	1175

The rule of three is commonly taught in a manner merely technical: that it may be learned in this manner, so as to answer the common purposes of life, there can be no doubt; and nothing is farther from our design than to depreciate any mode of instruction which has been sanctioned by experience: but our purpose is to point out methods of conveying instruction that shall improve the reasoning faculty, and habituate our pupil to think upon every subject. We wish, therefore, to point out the course which the mind would follow to solve problems relative to proportion without the rule, and to turn our pupil's attention to the circumstances in which the rule assists us.

The calculation of the price of any commodity, or the measure of any quantity, where the first term is one, may be always stated as a sum in the rule of three; but as this statement retards, instead of expediting the operation, it is never practised.

If one yard costs a shilling, how much will three yards cost?

The mind immediately perceives, that the price added three times together, or multiplied by three, gives the

answer. If a certain number of apples are to be equally distributed among a certain number of boys, if the share of one is one apple, the share of ten or twenty is plainly equal to ten or twenty. But if we state that the share of three boys is twelve apples, and ask what number will be sufficient for nine boys, the answer is not obvious; it requires consideration. Ask our pupil what made it so easy to answer the last question, he will readily say, "Because I knew what was the share of one."

Then you could answer this new question if you knew the share of one boy?

Yes.

Cannot you find out what the share of one boy is when the share of three boys is twelve?

Four.

What number of apples then will be enough, at the same rate, for nine boys?

Nine times four, that is thirty-six.

In this process he does nothing more than divide the second number by the first, and multiply the quotient by the third; 12 divided by 3 is 4, which multiplied by 9 is 36. And this is, in truth, the foundation of the rule; for though the golden rule facilitates calculation, and contributes admirably to our convenience, it is not absolutely necessary to the solution of questions relating to proportion.

Again, "If the share of three boys is five apples, how many will be sufficient for nine?"

Our pupil will attempt to proceed as in the former question, and will begin by endeavouring to find out the share of one of the three boys; but this is not quite so easy; he will see that each is to have one apple, and part of another; but it will cost him some pains to determine exactly how much. When at length he finds that one and two thirds is the share of one boy, before he can answer the question, he must multiply one and two thirds by nine, which is an operation *in fractions*, a rule of which he at present knows nothing. But if he begins by multiplying the second, instead of dividing it previously by the first number, he will avoid the embarrassment occasioned by fractional parts, and will easily solve the question.

3 : 5 : 9 : 15

Multiply 5
by 9

it makes 45

which product 45, divided by 3, gives 15.

Here our pupil perceives, that if a given number, 12, for instance, is to be divided by one number and multiplied by another, *it will come to the same thing*, whether he begins by dividing the given number, or by multiplying it.

12 divided by 4 is 3, which
multiplied by 6 is 18:
And
12 multiplied by 6 is 72, which
divided by 4 is 18.

We recommend it to preceptors not to fatigue the memories of their young pupils with sums which are difficult only from the number of figures which they require, but rather to give examples *in practice*, where aliquot parts are to be considered, and where their ingenuity may be employed without exhausting their patience. A variety of arithmetical questions occur in common conversation, and from common incidents; these should be made a subject of inquiry, and our pupils, among others, should try their skill: in short, whatever can be taught in conversation, is clear gain in instruction.

We should observe, that every explanation upon these subjects should be recurred to from time to time, perhaps every two or three months; as there are no circumstances in the business of every day, which recall abstract speculations to the minds of children; and the pupil who understands them to-day, may, without any deficiency of memory, forget them entirely in a few weeks. Indeed, the perception of the chain of reasoning, which connects demonstration, is what makes it truly advantageous in education. Whoever has occasion, in the business of life, to make use of the rule of three, may learn it effectually in a month as well as in ten years; but the habit of reasoning cannot be acquired late in life, without *unusual* labour and uncommon fortitude.

CHAPTER XVI.

GEOMETRY.

THERE is certainly no royal road to Geometry, but the way may be rendered easy and pleasant by timely preparations for the journey.

Without any previous knowledge of the country, or of its peculiar language, how can we expect that our young traveller should advance with facility or pleasure? We are anxious that our pupil should acquire a taste for accurate reasoning, and we resort to Geometry, as the most perfect and the purest series of ratiocination which has been invented. Let us, then, sedulously avoid whatever may disgust him; let his first steps be easy and successful; let them be frequently repeated, until he can trace them without a guide.

We have recommended, in the chapter upon Toys, that children should, from their earliest years, be accustomed to the shape of what are commonly called regular solids; they should also be accustomed to the figures in mathematical diagrams. To these should be added their respective names, and the whole language of the science should be rendered as familiar as possible.

Mr. Donne, an ingenious mathematician of Bristol, has published a prospectus of an Essay on Mechanical Geometry: he has executed, and employed with success, models in wood and metal, for demonstrating propositions in geometry in a *palpable* manner. We have endeavoured in vain to procure a set of these models for our own pupils, but we have no doubt of their entire utility.

What has been acquired in childhood should not be suffered to escape the memory. Dionysius* had mathematical diagrams described upon the floors of his apartments, and thus recalled their demonstrations to his memory. The slightest addition that can be conceived, if it be continued daily, will, imperceptibly, not only

* Plutarch.—Life of Dion.

preserve what has been already acquired, but will in a few years amount to as large a stock of mathematical knowledge as we could wish. It is not our object to make mathematicians, but to make it easy to our pupil to become a mathematician, if his interest or his ambition, make it desirable; and, above all, to habituate him to clear reasoning and close attention. And we may here remark, that an early acquaintance with the accuracy of mathematical demonstration, does not, within our experience, contract the powers of the imagination. On the contrary, we think that a young lady of twelve years old who is now no more, and who had an uncommon propensity to mathematical reasoning, had an imagination remarkably vivid and inventive.*

We have accustomed our pupils to form in their minds the conception of figures generated from points and lines, and surfaces supposed to move in different directions and with different velocities. It may be thought, that this would be a difficult occupation for young minds; but, upon trial, it will be found not only easy to them, but entertaining. In their subsequent studies, it will be of material advantage; it will facilitate their progress not only in pure mathematics, but in mechanics and astronomy, and in every operation of the mind which requires exact reflection.

To demand steady thought from a person who has not been trained to it, is one of the most unprofitable and dangerous requisitions that can be made in education.

> "Full in the midst of Euclid dip at once,
> And petrify a genius to a dunce."

In the usual commencement of mathematical studies, the learner is required to admit that a point, of which he sees the prototype, a dot before him, has neither length, breadth, nor thickness. This, surely, is a degree of faith not absolutely necessary for the neophyte in science. It is an absurdity which has, with much success, been attacked in "Observations on the Nature of Demonstrative Evidence," by Doctor Beddoes.

We agree with the doctor as to the impropriety of calling a visible dot a point without dimensions. But, notwithstanding the high respect which the author commands by a steady pursuit of truth on all subjects of

* See Rivuletta, a little story written *entirely* by her in 1786.

human knowledge, we cannot avoid protesting against part of the doctrine which he has endeavoured to inculcate. That the names, point, radius, &c., are derived from sensible objects, need not be disputed; but surely the word centre can be understood by the human mind without the presence of any visible or tangible substance.

Where two lines meet, their junction cannot have dimensions; where two radii of a circle meet, they constitute the centre; and the name centre may be used for ever without any relation to a tangible or visible point. The word boundary, in like manner, means the extreme limit we call a line; but to assert that it has thickness, would, from the very terms which are used to describe it, be a direct contradiction. Bishop Berkeley, Mr. Walton, Philathetes Cantabrigiensis, and Mr. Benjamin Robins, published several pamphlets upon this subject about half a century ago. No man had a more penetrating mind than Berkeley; but we apprehend that Mr. Robins closed the dispute against him. This is not meant as an appeal to authority, but to apprize such of our readers as wish to consider the argument, where they may meet an accurate investigation of the subject. It is sufficient for our purpose, to warn preceptors not to insist upon their pupils' acquiescence in the dogma, that a point, represented by a dot, is without dimensions; and at the same time to profess, that we understand distinctly what is meant by mathematicians when they speak of length without breadth, and of a superficies without depth; expressions which, to our minds, convey a meaning as distinct as the name of any visible or tangible substance in nature, whose varieties from shade, distance, colour, smoothness, heat, &c., are infinite, and not to be comprehended in any definition.

In fact, this is a dispute merely about words; and as the extension of the art of printing puts it in the power of every man to propose and to defend his opinions at length and at leisure, the best friends may support different sides of a question with mutual regard, and the most violent enemies with civility and decorum. Can we believe that Tycho Brahe lost half his nose in a dispute with a Danish nobleman about a mathematical demonstration?

CHAPTER XVII.

ON MECHANICS.

Parents are anxious that children should be conversant with Mechanics, and with what are called the Mechanic Powers. Certainly no species of knowledge is better suited to the taste and capacity of youth, and yet it seldom forms a part of early instruction. Everybody talks of the lever, the wedge, and the pulley, but most people perceive, that the notions which they have of their respective uses are unsatisfactory and indistinct; and many endeavour, at a late period of life, to acquire a scientific and exact knowledge of the effects that are produced by implements which are in everybody's hands, or that are absolutely necessary in the daily occupations of mankind.

An itinerant lecturer seldom fails of having a numerous and attentive auditory; and if he does not communicate much of that knowledge which he endeavours to explain, it is not to be attributed either to his want of skill, or to the insufficiency of his apparatus, but to the novelty of the terms which he is obliged to use. Ignorance of the language in which any science is taught, is an insuperable bar to its being suddenly acquired; besides a precise knowledge of the meaning of terms, we must have an instantaneous idea excited in our minds whenever they are repeated; and, as this can be acquired only by practice, it is impossible that philosophical lectures can be of much service to those who are not familiarly acquainted with the technical language in which they are delivered; and yet there is scarcely any subject of human inquiry more obvious to the understanding than the laws of mechanics. Only a small portion of geometry is necessary to the learner, if he even wishes to become master of the more difficult problems which are usually contained in a course of lectures; and most of what is practically useful, may be acquired by any person who is expert in common arithmetic.

But we cannot proceed a single step without deviating from common language; if the theory of the balance or the lever is to be explained, we immediately speak of *space* and *time*. To persons not versed in literature, it is probable that these terms appear more simple and intelligible than they do to a man who has read Locke, and other metaphysical writers. The term *space*, to the bulk of mankind, conveys the idea of an interval; they consider the word *time* as representing a definite number of years, days, or minutes; but the metaphysician, when he hears the words *space* and *time*, immediately takes the alarm, and recurs to the abstract notions which are associated with these terms; he perceives difficulties unknown to the unlearned, and feels a confusion of ideas which distracts his attention. The lecturer proceeds with confidence, never supposing that his audience can be puzzled by such common terms. He means by *space*, the distance from the place whence a body begins to fall, to the place where its motion ceases; and by *time*, he means the number of seconds, or of any determinate divisions of *civil* time, which elapse from the commencement of any motion to its end; or, in other words, the duration of any given motion. After this has been frequently repeated, any intelligent person perceives the sense in which they are used by the tenour of the discourse; but in the interim, the greatest part of what he has heard cannot have been understood, and the premises upon which every subsequent demonstration is founded, are unknown to him. If this be true when it is affirmed of two terms only, what must be the situation of those to whom eight or ten unknown technical terms occur at the commencement of a lecture? A complete knowledge, such a knowledge as is not only full, but familiar, of all the common terms made use of in theoretic and practical mechanics, is, therefore, absolutely necessary, before any person can attend public lectures in natural philosophy with advantage.

What has been said of public lectures, may, with equal propriety, be applied to private instruction; and it is probable, that inattention to this circumstance is the reason why so few people have distinct notions of natural philosophy. Learning by rote, or even reading repeatedly, definitions of the technical terms of any science, must undoubtedly facilitate its acquirement;

but conversation, with the habit of explaining the meaning of words, and the structure of common domestic implements, to children, is the sure and effectual method of preparing the mind for the acquirement of science.

The ancients, in learning this species of knowledge, had an advantage of which we are deprived: many of their terms of science were the common names of familiar objects. How few do we meet who have a distinct notion of the words radius, angle, or valve. A Roman peasant knew what a radius or a valve meant, in its original signification, as well as a modern professor; he knew that a valve was a door, and a radius a spoke of a wheel; but an English child finds it as difficult to remember the meaning of the word angle, as the word parabola. An angle is usually confounded, by those who are ignorant of geometry and mechanics, with the word triangle; and the long reasoning of many a laborious instructer has been confounded by this popular mistake. When a glass pump is shown to an admiring spectator, he is desired to watch the motion of the valves: he looks "above, about, and underneath;" but, ignorant of the word *valve*, he looks in vain. Had he been desired to look at the motion of the little doors that opened and shut, as the handle of the pump was moved up and down, he would have followed the lecturer with ease, and would have understood all his subsequent reasoning. If a child attempts to push any thing heavier than himself, his feet slide away from it, and the object can be moved only at intervals, and by sudden starts; but if he be desired to prop his feet against the wall, he finds it easy to push what before eluded his little strength. Here the use of a fulcrum, or fixed point, by means of which bodies may be moved, is distinctly understood. If two boys lay a board across a narrow block of wood or stone, and balance each other at the opposite ends of it, they acquire another idea of a centre of motion. If a poker is rested against a bar of a grate, and employed to lift up the coals, the same notion of a centre is recalled to their minds. If a boy, sitting upon a plank, a sofa, or form, be lifted up by another boy's applying his strength at one end of the seat, while the other rests on the ground, it will be readily perceived by them, that the point of rest, or centre of motion, or fulcrum, is the ground, and that

the fulcrum is not, as in the first instance, between the force that lifts and the thing that is lifted; the fulcrum is at one end, the force which is exerted acts at the other end, and the weight is in the middle. In trying these simple experiments, the terms *fulcrum*, *centre of motion*, *&c.*, should be constantly employed, and in a very short time they would be as familiar to a boy of eight years old as to any philosopher. If for some years the same words frequently recur to him in the same sense, is it to be supposed that a lecture upon the balance and the lever would be as unintelligible to him as to persons of good abilities, who at a more advanced age hear these terms from the mouth of a lecturer? A boy in such circumstances would appear as if he had a genius for mechanics, when, perhaps, he might have less taste for the science, and less capacity, than the generality of the audience. Trifling as it may at first appear, it will not be found a trifling advantage, in the progress of education, to attend to this circumstance. A distinct knowledge of a few terms assists a learner in his first attempts; finding these successful, he advances with confidence, and acquires new ideas without difficulty or disgust. Rousseau, with his usual eloquence, has inculcated the necessity of annexing ideas to words; he declaims against the splendid ignorance of men who speak by rote, and who are rich in words amid the most deplorable poverty of ideas. To store the memory of his pupil with images of things, he is willing to neglect and leave to hazard his acquirement of language. It requires no elaborate argument to prove that a boy, whose mind was stored with accurate images of external objects of experimental knowledge, and who had acquired habitual dexterity, but who was unacquainted with the usual signs by which ideas are expressed, would be incapable of accurate reasoning, or would, at best, reason only upon particulars. Without general terms, he could not abstract; he could not, until his vocabulary was enlarged and familiar to him, reason upon general topics, or draw conclusions from general principles: in short, he would be in the situation of those who, in the solution of difficult and complicated questions relative to quantity, are obliged to employ tedious and perplexed calculations, instead of the clear and comprehensive methods that unfold themselves by the use of signs in algebra.

It is not necessary, in teaching children the technical language of any art or science, that we should pursue the same order that is requisite in teaching the science itself. Order is required in reasoning, because all reasoning is employed in deducing propositions from one another in a regular series; but where terms are employed merely as names, this order may be dispensed with. It is, however, of great consequence to seize the proper time for introducing a new term; a moment when attention is awake, and when accident has produced some particular interest in the object. In every family, opportunities of this sort occur without any preparation; and such opportunities are far preferable to a formal lecture and a splendid apparatus, for the first lessons in natural philosophy and chymistry. If the pump belonging to the house is out of order, and the pump-maker is set to work, an excellent opportunity presents itself for variety of instruction. The centre pin of the handle is taken out, and a long rod is drawn up by degrees, at the end of which a round piece of wood is seen, partly covered with leather. Your pupil immediately asks the name of it, and the pump-maker prevents your answer, by informing little master that it is called a sucker. You show it to the child, he handles it, feels whether the leather is hard or soft, and at length discovers that there is a hole through it, which is covered with a little flap or door. This, he learns from the workman, is called a clack. The child should now be permitted to plunge *the piston* (by which name it should *now* be called) into a tub of water; in drawing it backward and forward, he will perceive that the clack, which should now be called the valve, opens and shuts as the piston is drawn backward and forward. It will be better not to inform the child how this mechanism is employed in the pump. If the names sucker and piston, clack and valve, are fixed in his memory, it will be sufficient for his first lesson. At another opportunity, he should be present when the fixed or lower valve of the pump is drawn up; he will examine it, and find that it is similar to the valve of the piston; if he sees it put down into the pump, and sees the piston put into its place, and set to work, the names that he has learned will be fixed more deeply in his mind, and he will have some general notion of the whole apparatus. From time to time these names should be recalled to his memory

on suitable occasions, but he should not be asked to repeat them by rote. What has been said is not intended as a lesson for a child in mechanics, but as a sketch of a method of teaching which has been employed with success.

Whatever repairs are carried on in a house, children should be permitted to see: while everybody about them seems interested, they become attentive from sympathy; and whenever action accompanies instruction, it is sure to make an impression. If a lock is out of order, when it is taken off, show it to your pupil; point out some of its principal parts, and name them; then put it into the hands of a child, and let him manage it as he pleases. Locks are full of oil, and black with dust and iron; but if children have been taught habits of neatness, they may be clockmakers and whitesmiths without spoiling their clothes or the furniture of a house. Upon every occasion of this sort, technical terms should be made familiar; they are of great use in the everyday business of life, and are peculiarly serviceable in giving orders to workmen, who, when they are spoken to in a language that they are used to, comprehend what is said to them, and work with alacrity.

An early use of a rule and pencil, and easy access to prints of machines, of architecture, and of the implements of trades, are of obvious use in this part of education. The machines published by the Society of Arts in London; the prints in Desaguliers, Emerson, Le Spectacle de la Nature, Machines approuvées par l'Académie, Chambers's Dictionary, Berthoud sur l'Horlogerie, Dictionnaire des Arts et des Métiers, may, in succession, be put into the hands of children. The most simple should be first selected, and the pupils should be accustomed to attend minutely to one print before another is given to them. A proper person should carefully point out and explain to them the first prints that they examine; they may afterward be left to themselves.

To understand prints of machines, a previous knowledge of what is meant by an elevation, a profile, a section, a perspective view, and a (*vue d'oiseau*) bird's-eye view, is necessary. To obtain distinct ideas of sections, a few models of common furniture, as chests of drawers, bellows, grates, &c., may be provided, and may be cut asunder in different directions. Children easily comprehend this part of drawing and its uses, which may

be pointed out in books of architecture; its application to the common business of life is so various and immediate, as to fix it for ever in the memory; besides, the habit of abstraction, which is acquired by drawing the sections of complicated architecture or machinery, is highly advantageous to the mind. The parts which we wish to express are concealed, and are suggested partly by the elevation or profile of the figure, and partly by the connexion between the end proposed in the construction of the building, machine, &c., and the means which are adopted to effect it.

A knowledge of perspective is to be acquired by an operation of the mind directly opposite to what is necessary in delineating the sections of bodies; the mind must here be intent only upon the objects that are delineated upon the retina, exactly what we see; it must forget or suspend the knowledge which it has acquired from experience, and must see with the eye of childhood, no farther than the surface. Every person who is accustomed to drawing in perspective, sees external nature, when he pleases, merely as a picture: this habit contributes much to form a taste for the fine arts; it may, however, be carried to excess. There are improvers who prefer the most dreary ruin to an elegant and convenient mansion, and who prefer a blasted stump to the glorious foliage of the oak.

Perspective is not, however, recommended merely as a means of improving the taste, but as it is useful in facilitating the knowledge of mechanics. When once children are familiarly acquainted with perspective, and with the representations of machines by elevations, sections, &c., prints will supply them with an extensive variety of information; and when they see real machines, their structure and uses will be easily comprehended. The noise, the seeming confusion, and the size of several machines, make it difficult to comprehend and combine their various parts, without much time and repeated examination; the reduced size of prints lays the whole at once before the eye, and tends to facilitate not only comprehension, but contrivance. Whoever can delineate progressively as he invents, saves much labour, much time, and the hazard of confusion. Various contrivances have been employed to facilitate drawing in perspective, as may be seen in "Cabinet de Servier, Memoires of the French Academy,

Philosophical Transactions, and lately in the Repertory of Arts." The following is simple, cheap, and *portable*.

PLATE 1. FIG. 1.

A B C, three mahogany boards, two, four, and six inches long, and of the same breadth respectively, so as to double in the manner represented.

PLATE 1. FIG. 2.

The part A is screwed or *clamped* to a table of a convenient height, and a sheet of paper, one edge of which is put under the piece A, will be held fast to the table.

The index P is to be set (at pleasure) with its sharp point to any part of an object which the eye sees through E, the eye-piece.

The machine is now to be doubled as in Fig. 2. taking care that the index be not disturbed; the point, which was before perpendicular, will then approach the paper horizontally, and the place to which it points on the paper must be marked with a pencil. The machine must be again unfolded, and another point of the object is to be ascertained in the same manner as before; the space between these points may be then connected with a line; fresh points should then be taken, marked with a pencil and connected with a line; and so on successively, until the whole object is delineated.

Besides the common terms of art, the technical terms of science should, by degrees, be rendered familiar to our pupils. Among these the words Space and Time occur, as we have observed, the soonest, and are of the greatest importance. Without exact definitions, or abstract reasonings, a general notion of the use of these terms may be inculcated by employing them frequently in conversation, and by applying them to things and circumstances which occur without preparation, and about which children are interested or occupied. "There is a great space left between the words in that printing." The child understands, that *space* in this sentence means white paper between black letters. "You should leave a greater space between the flowers which you are planting"—he knows that you mean more *ground*. "There is a great space between that boat and the ship" —space of water. "I hope the hawk will not be able to catch that pigeon, there is a great space between them"—space of air. "The men who are pulling that

sack of corn into the granary, have raised it through half the space between the door and the ground." A child cannot be at any loss for the meaning of the word space in these or any other practical examples which may occur; but he should also be used to the word space as a technical expression, and then he will not be confused or stopped by a new term when employed in mechanics.

The word *time* may be used in the same manner upon numberless occasions, to express the duration of any movement which is performed by the force of men, or horses, wind, water, or any mechanical power.

"Did the horses in the mill we saw yesterday, go as fast as the horses which are drawing the chaise?"—"No, not as fast as the horses go at present on level ground; but they went as fast as the chaise-horses do when they go up hill, or as fast as horses draw a wagon."

"How many times do the sails of that windmill go round in a minute? Let us count; I will look at my watch; do you count how often the sails go round; wait until that broken arm is uppermost, and when you say *now*, I will begin to count the *time;* when a minute has passed, I will tell you."

After a few trials, this experiment will become easy to a child of eight or nine years old; he may sometimes attend to the watch, and at other times count the turns of the sails; he may easily be made to apply this to a horsemill, or to a watermill, a corn-fan, or any machine that has a rotary motion; he will be entertained with his new employment; he will compare the *velocities* of different machines; the meaning of this word will be easily added to his vocabulary.

"Does that part of the arms of the windmill which is near the *axletree*, or *centre*, I mean that part which has no cloth or sail upon it, go as fast as the ends of the arms that are the farthest from the centre?"

"No, not near so fast."

"But that part goes as often round in a minute as the rest of the sail."

"Yes, but it does not go as fast."

"How so?"

"It does not go so *far* round."

"No, it does not. The *extremities* of the *sails go through more space in the same time* than the part near the centre."

By conversations like these, the technical meaning of the word *velocity* may be made quite familiar to a child much younger than what has been mentioned; he may not only comprehend that velocity means time and space considered together, but if he is sufficiently advanced in arithmetic, he may be readily taught how to express and compare in numbers *velocities* composed of certain portions of time and space. He will not inquire about the abstract meaning of the word *space;* he has seen space measured on paper, on timber, on the water, in the air, and he perceives distinctly that it is a term equally applicable to all distances that can exist between objects of any sort, or that he can see, feel, or imagine.

Momentum, a less common word, the meaning of which is not quite so easy to convey to a child, may, by degrees, be explained to him: at every instant he feels the effect of momentum in his own motions, and in the motions of every thing that strikes against him; his feelings and experience require only proper terms to become the subject of his conversation. When he begins to inquire, it is the proper time to instruct him. For instance, a boy of ten years old, who had acquired the meaning of some other terms in science, this morning asked the meaning of the word momentum; he was desired to explain what he thought it meant.

He answered, "Force."

"What do you mean by force?"

"Effort."

"Of what?"

"Of gravity."

"Do you mean that force by which a body is drawn down to the earth?"

"No."

"Would a feather, if it were moving with the greatest conceivable swiftness or velocity, throw down a castle?"

"No."*

"Would a mountain torn up by the roots, as fabled in Milton, if it moved with the least conceivable velocity, throw down a castle?"

"Yes, I think it would."

The difference between a uniform and a uniformly

* When this question was some time afterward repeated to S—— he observed, that the feather would throw down the castle, if its swiftness were so great as to make up for its want of weight.

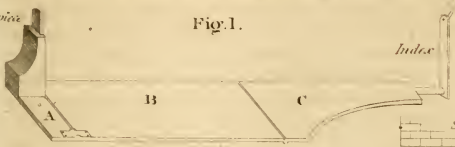
accelerated motion, the measure of the velocity of falling bodies, the composition of motions communicated to the same body in different directions at the same time, and the cause of the curvilineal track of projectiles, seem, at first, intricate subjects, and above the capacity of boys of ten or twelve years old; but by short and well-timed lessons, they may be explained without confounding or fatiguing their attention. We tried another experiment while this chapter was writing, to determine whether we had asserted too much upon this subject. After a conversation between two boys upon the descent of bodies towards the earth, and upon the measure of the increasing velocity with which they fall, they were desired, with a view to ascertain whether they understood what was said, to invent a machine which would show the difference between a uniform and an accelerated velocity, and in particular to show, by ocular demonstration, "that if one body moves in a given time through a given space, with a uniform motion, and if another body moves through the same space in the same time with a uniformly accelerated motion, the uniform motion of the one will be equal to half the accelerated motion of the other." The eldest boy, H——, thirteen years old, invented and executed the following machine for this purpose:

Plate 1. Fig. 3. *b* is a bracket 9 inches by 5, consisting of a back and two sides of hard wood: two inches from the back two slits are made in the sides of the bracket, half an inch deep and an eighth of an inch wide, to receive the two wire pivots of a roller; which roller is composed of a cylinder, three inches long and half an inch diameter; and a cone, three inches long and one inch diameter in its largest part or base. The cylinder and cone are not separate, but are turned out of one piece; a string is fastened to the cone at its base *a*, with a bullet or any other small weight at the other end of it; and another string and weight are fastened to the cylinder at *c*; the pivot *p* of wire is bent into the form of a handle; if the handle is turned either way, the strings will be respectively wound up upon the cone and cylinder; their lengths should now be adjusted, so that when the string on the cone is wound up as far as the cone will permit, the two weights may be at an equal distance from the bottom of the bracket, which bottom we suppose to be parallel with the pivots; the

Perspective view of a Drawing Machine.

Fig. 1.

Page 588.



Section of a Drawing Machine.

Fig. 2.

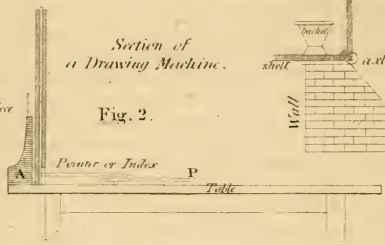
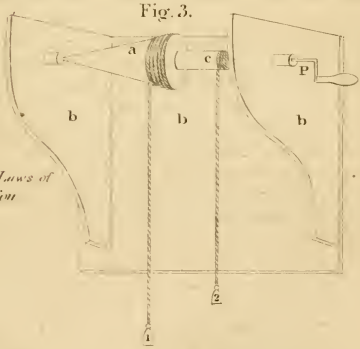


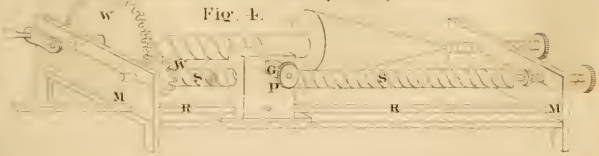
Fig. 3.

Machine for showing the Laws of accellerated motion



Machine for cutting spiral grooves.

Fig. 4.



bracket should now be fastened against a wall, at such a height as to let the weights lightly touch the floor when the strings are unwound: silk or *bobbin* is a proper kind of string for this purpose, as it is woven or plaited, and therefore is not liable to twist. When the strings are wound up to their greatest heights, if the handle be suddenly let go, both the weights will begin to fall at the same moment; but the weight 1 will descend at first but slowly, and will pass through but small space compared with the weight 2. As they descend farther, No. 2 still continues to get before No. 1; but after some time, No. 1 begins to overtake No. 2, and at last they come to the ground together. If this machine is required to show exactly the space that a falling body would describe in given times, the cone and cylinder must have grooves cut spirally upon their circumference, to direct the string with precision. To describe these spiral lines, became a new subject of inquiry. The young mechanics were again eager to exert their powers of invention; the eldest invented a machine upon the same principle as that which is used by the best workmen for cutting clock fusees; and it is described in Berthoud. The youngest invented the engine delineated, Plate 1. Fig. 4.

The roller or cone (or both together) which it is required to cut spirally, must be furnished with a handle, and a toothed wheel *w*, which turns a smaller wheel or pinion *w*. This pinion carries with it a screw *s*, which draws forward the puppet *p*, in which the graver or chisel *g* slides *without shake*. This graver has a point or edge shaped properly to form the spiral groove, with a shoulder to regulate the depth of the groove. The iron rod *r*, which is firmly fastened in the puppet, slides through mortises at *m m*, and guides the puppet in a straight line.

The rest of the machine is intelligible from the drawing.

A simple method of showing the nature of compound forces was thought of at the same time. An ivory ball was placed at the corner of a board sixteen inches broad and two feet long; two other similar balls were let fall down inclined troughs against the first ball in different directions, but at the same time. One fell in a direction parallel to the length of the board; the other ball fell back in a direction parallel to its breadth. By

raising the troughs, such a force was communicated to each of the falling balls, as was sufficient to drive the ball that was at rest to that side or end of the board which was opposite, or at right angles, to the line of its motion.

When both balls were let fall together, they drove the ball that was at rest diagonally, so as to reach the opposite corner. If the same board were placed as an inclined plane, at an angle of five or six degrees, a ball placed at one of its uppermost corners would fall with an accelerated motion in a direct line; but if another ball were made (by descending through an inclined trough) to strike the first ball at right angles to the line of its former descent, at the moment when it began to descend, it would not, as in the former experiment, move diagonally, but would describe a curve.

The reason why it describes a curve, and why that curve is not circular, was easily understood. Children who are thus induced to invent machines or apparatus for explaining and demonstrating the laws of mechanism, not only fix indelibly those laws in their own minds, but enlarge their powers of invention, and preserve a certain originality of thought, which leads to new discoveries.

We therefore strongly recommend it to teachers, to use as few precepts as possible in the rudiments of science, and to encourage their pupils to use their own understandings as they advance. In mechanism, a general view of the powers and uses of engines is all that need be taught; where more is necessary, such a foundation, with the assistance of good books and the examination of good machinery, will perfect the knowledge of theory and facilitate practice.

At first we should not encumber our pupils with accurate demonstration. The application of mathematics to mechanics is undoubtedly of the highest use, and has opened a source of ingenious and important inquiry. Archimedes, the greatest name among mechanic philosophers, scorned the mere practical application of his sublime discoveries; and at the moment when the most stupendous effects were producing by his engines, he was so deeply absorbed in abstract speculation as to be insensible to the fear of death. We do not mean, therefore, to undervalue either the application of strict demonstration to problems in mechanics, or the exhibition

of the most accurate machinery in philosophical lectures; but we wish to point out a method of giving a general notion of the mechanical organs to our pupils, which shall be immediately obvious to their comprehension, and which may serve as a sure foundation for future improvement. We are told by a vulgar proverb, that though we believe what we see, we have yet a higher belief in what we *feel*. This adage is particularly applicable to mechanics. When a person perceives the effect of his own bodily exertions with different engines, and when he can compare in a rough manner their relative advantages, he is not disposed to reject their assistance, or expect more than is reasonable from their application. The young theorist in mechanics thinks he can produce a perpetual motion! When he has been accustomed to refer to the plain dictates of common sense and experience on this, as well as on every other subject, he will not easily be led astray by visionary theories.

To bring the sense of feeling to our assistance in teaching the uses of the mechanic powers, the following apparatus was constructed, to which we have given the name Panorganon.

It is composed of two principal parts; a frame to contain the moving machinery, and a *capstan* or *windlass*, which is erected on a *sill* or plank, that is sunk a few inches into the ground: the frame is, by this means, and by six braces or props, rendered steady. The cross rail, or *transom*, is strengthened by braces and a king-post to make it lighter and cheaper. The *capstan* consists of an upright shaft, upon which are fixed two *drums*, about which a rope may be wound up, and two levers or arms, by which it may be turned round. There is also a screw of iron coiled round the lower part of the shaft, to show the properties of the screw as a mechanic power. The rope which goes round the *drum* passes over one of the pulleys near to the top of the frame, and under another pulley near the bottom of the frame. As two *drums* of different sizes are employed, it is necessary to have an upright roller to conduct the rope in a proper direction to the pulleys, when either of the drums is used. Near the frame, and in the direction in which the rope runs, is laid a platform or road of deal boards, one board in breadth, and twenty or thirty feet long, upon which a small sledge,

loaded with different weights, may be drawn. Plate 2. Fig. 1.

F F. The frame.

b b. Braces to keep the frame steady.

a a a. Angular braces to strengthen the transom; and also a *king-post*.

S. A round, taper shaft, strengthened above and below the mortises with iron hoops.

L L. Two arms, or levers, by which the shaft, &c. are to be moved round.

D D. The drum, which has two rims of different circumferences.

R. The roller to conduct the rope.

P. The pulley, round which the rope passes to the larger drum.

P 2. Another pulley, to answer to the smaller drum.

P 3. A pulley through which the rope passes when experiments are tried with levers, &c.

P 4. Another pulley, through which the rope passes when the sledge is used.

Ro. The road of deal boards for the sledge to move on.

Sl. The sledge, with pieces of hard wood attached to it, to guide it on the road.

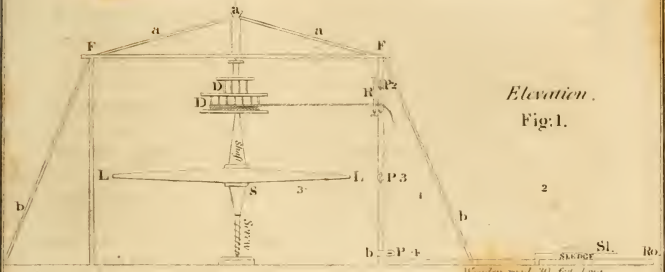
Uses of the Panorganon.

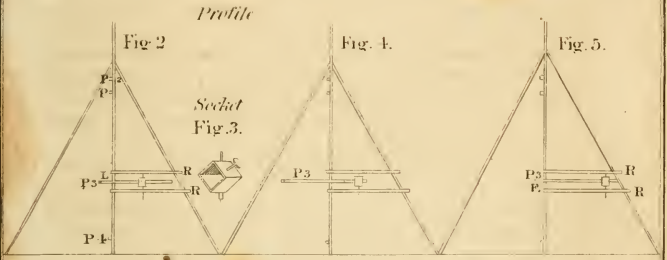
As this machine is to be moved by the force of men or children, and as their force varies not only with the strength and weight of each individual, but also according to the different manner in which that strength or weight is applied; it is, in the first place, requisite to establish one determinate mode of applying human force to the machine; and also a method of determining the relative force of each individual whose strength is applied to it.

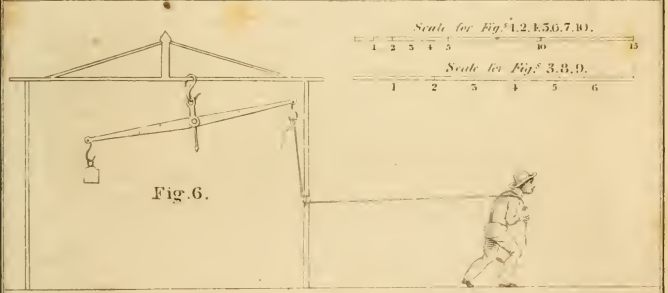
To estimate the force with which a person can draw horizontally by a rope over his shoulder.

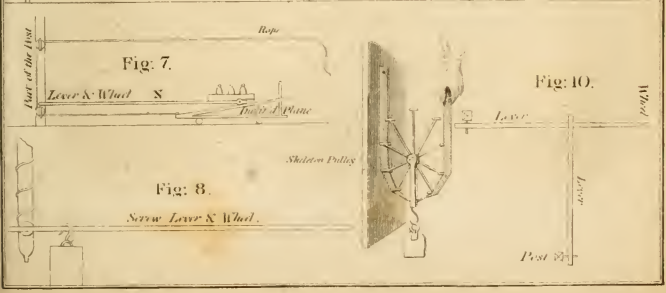
EXPERIMENT I.

Hang a common long scale-beam (without scales or chains) from the top or *transom* of the frame, so that one end of it may come within an inch of one side or post of the machine. Tie a rope to the hook of the scale-beam, where the chains of the scale are usually hung, and pass it through the pulley P 3, which is about four


a
F
a
a
F
D
D
R
P2
Elevation.
Fig. 1.
Stop
L
L
P3
S
3
2
b
b
b
P4
Sl.
Ro.
Sledge
Wooden trail 30 feet long


Profile
Fig. 2
Fig. 4.
Fig. 5.
P2
P1
Sedat
Fig. 3.
L
R
P5
R
P3
P5
P.
R
P4


Scale for Fig.s 1.2.4.5.6.7.10.
1 2 3 4 5 10 15
Scale for Fig.s 3.8.9.
1 2 3 4 5 6
Fig. 6.


Rope
Part of the Vest.
Fig. 7.
Lever & Whael
N
Fixed Plane
Skeleton Pulley
Fig. 8.
Screw Lever & Whael.
Fig. 10.
Whael
Lever
Lever
Post

feet from the ground; let the person pull this rope from 1 towards 2, turning his back to the machine, and pulling the rope over his shoulder—Pl. 2. Fig. 6. As the pulley may be either too high or too low to permit the rope to be horizontal, the person who pulls it should be placed ten or fifteen feet from the machine, which will lessen the angular direction of the cord, and the inaccuracy of the experiment. Hang weights to the other end of the scale-beam, until the person who pulls can but just walk forward, pulling fairly, without propping his feet against any thing. This weight will estimate the force with which he can draw horizontally by a rope over his shoulder.* Let a child who tries this, walk on the board with dry shoes; let him afterward chalk his shoes, and afterward try it with his shoes soaped: he will find that he can pull with different degrees of force in these different circumstances; but when he tries the following experiments, let his shoes be always dry, that his force may be always the same.

To show the power of the three different sorts of levers.

EXPERIMENT II.

Instead of putting the cord that comes from the scale-beam, as in the last experiment, over the shoulder of the boy, hook it to the end 1 of the lever L, Fig 2. Plate 2. This lever is passed through a socket—Plate 2. Fig. 3.—in which it can be shifted from one of its ends towards the other, and can be fastened at any place by the screw of the socket. This socket has two gudgeons, upon which it, and the lever which it contains, can turn. This socket and its gudgeons can be lifted out of the holes in which it plays, between the rail R R, Plate 2. Fig. 2. and may be put into other holes at R R, Fig. 5. Loop another rope to the other end of this lever, and let the boy pull as before. Perhaps it should be pointed out, that the boy must walk in a direction contrary to that in which he walked before, viz., from 1 towards 3. The height to which the weight ascends, and the distance to which the boy advances, should be carefully

* Were it thought necessary to make these experiments perfectly accurate, a segment of a pulley, the radius of which is half the length of the scale-beam, should be attached to the end of the beam, upon which the cord may apply itself; and the pulley (P 3) should be raised or lowered, to bring the rope horizontally from the man's shoulder when in the attitude of drawing.

marked and measured; and it will be found that he can raise the weight to the same height, advancing through the same space, as in the former experiment. In this case, as both ends of the lever moved through equal spaces, the lever only changed the direction of the motion, and added no mechanical power to the direct strength of the boy.

EXPERIMENT III.

Shift the lever to its extremity in the *socket;* the middle of the lever will be now opposite to the pulley, Pl. 2. Fig. 4.—hook to it the rope that goes through the pulley P 3, and fasten to the other end of the lever the rope by which the boy is to pull. This will be *a lever of the second kind*, as it is called in books of mechanics; in using which, *the resistance is placed between the centre of motion or fulcrum, and the moving power.* He will now raise double the weight that he did in Experiment II, and he will advance through double the space.

EXPERIMENT IV.

Shift the lever, and the socket which forms the axis (without shifting the lever from the place in which it was in the socket in the last experiment), to the holes that are prepared for it at R R, Plate 2. Fig. 5. The free end of the lever E will now be opposite to the rope, and to the pulley (over which the rope comes from the scale-beam). Hook this rope to it, and hook the rope by which the boy pulls, to the middle of the lever. The effect will now be different from what it was in the two last experiments; the boy will advance only half as far, and will raise only half as much weight as before. This is called *a lever of the third sort.* The first and second kinds of levers are used in quarrying; and the operations of many tools may be referred to them. The third kind of lever is employed but seldom, but its properties may be observed with advantage while a long ladder is raised, as the man who raises it is obliged to exert an increasing force until the ladder is nearly perpendicular. When this lever is used, it is obvious, from what has been said, that the power must always pass through less space than the thing which is to be moved; it can never, therefore, be of service in gaining power. But the object of some machines is to increase velocity, instead of obtaining power, as in a sledge-hammer moved by

mill-work. (See the plates in Emerson's Mechanics, No. 236.)

The experiments upon levers may be varied at pleasure, increasing or diminishing the mechanical advantage, so as to balance the power and the resistance, to accustom the learners to calculate the relation between the power and the effect in different circumstances; always pointing out that whatever excess there is in the power* or in the resistance, is always compensated by the difference of space through which the inferior passes.

The experiments which we have mentioned are sufficiently satisfactory to a pupil, as to the immediate relation between the power and the resistance; but the different spaces through which the power and the resistance move when one exceeds the other, cannot be obvious, unless they pass through much larger spaces than levers will permit.

EXPERIMENT V.

Place the sledge on the farthest end of the wooden road—Plate 2. Fig. 1.—fasten a rope to the sledge, and conduct it through the lowest pulley P 4, and through the pulley P 3, so that the boy may be enabled to draw it by the rope passed over his shoulder. The sledge must now be loaded, until the boy can but just advance with short steps steadily upon the wooden road; this must be done with care, as there will be but just room for him beside the rope. He will meet the sledge exactly on the middle of the road, from which he must step aside to pass the sledge. Let the time of this experiment be noted. It is obvious that the boy and the sledge move with equal velocity; there is, therefore, no mechanical advantage obtained by the pulleys. The weight that he can draw will be about half a hundred, if he weigh about nine stone; but the exact force with which the boy draws, is to be known by Experiment I.

The wheel and axle.

This organ is usually called in mechanics, *The axis in peritrochio.* A *hard* name, which might well be spared, as the word windlass or capstan would convey a more distinct idea to our pupils.

* The word *power* is here used in a popular sense, to denote the strength or efficacy that is employed to produce an effect by means of any engine.

EXPERIMENT VI.

To the largest drum, Plate 2. Fig. 1. fasten a cord, and pass it through the pulley P downward, and through the pulley P 4 to the sledge placed at the end of the wooden road, which is farthest from the machine. Let the boy, by a rope fastened to the extremity of one of the arms of the capstan, and passed over his shoulder, draw the capstan round; he will wind the rope round the drum, and draw the sledge upon its road. To make the sledge advance twenty-four feet upon its road, the boy must have walked circularly 144 feet, which is six times as far, and he will be able to draw about three hundred weight, which is six times as much as in the last experiment.

It may now be pointed out, that the difference of space passed through by the power in this experiment, is exactly equal to the difference of weight which the boy could draw without the capstan.

EXPERIMENT VII.

Let the rope be now attached to the smaller drum; the boy will draw nearly twice as much weight upon the sledge as before, and will go through double the space.

EXPERIMENT VIII.

Where there are a number of boys, let five or six of them, whose power of drawing (estimated as in Experiment 1) amounts to six times as much as the force of the boy at the capstan, pull at the end of the rope which *was* fastened to the sledge; they will balance the force of the boy at the capstan: either they or he, by a sudden pull, may advance,—but if they pull fairly, there will be no advantage on either part. In this experiment the rope should pass through the pulley P 3, and should be coiled around the larger drum. And it must be also observed, that in all experiments upon the motion of bodies in which there is much friction, as where a sledge is employed, the results are never so uniform as in other circumstances.

The Pulley.

Upon the pulley we shall say little, as it is in everybody's hands, and experiments may be tried upon it without any particular apparatus. It should, however,

be distinctly inculcated, that the power is not increased by a fixed pulley. For this purpose, a wheel without a rim, or, to speak with more propriety, a number of spokes fixed in a nave, should be employed. (Plate 2. Fig. 9.) Pieces like the heads of crutches should be fixed at the ends of these spokes, to receive a piece of girth-web, which is used instead of a cord, because a cord would be unsteady; and a strap of iron with a hook to it should play upon the centre, by which it may at times be suspended, and from which at other times a weight may be hung.

EXPERIMENT IX.

Let the skeleton of a pulley be hung by the iron strap from the transom of the frame; fasten a piece of web to one of the radii, and another to the end of the opposite radius. If two boys of equal weight pull these pieces of girth-web, they will balance each other; or two equal weights hung to these webs will be in equilibrio. If a piece of girth-web be put round the uppermost radius, two equal weights hung at the ends of it will remain immoveable; but if either of them be pulled, or if a small additional weight be added to either of them, it will descend, and the web will apply itself successively to the ascending radii, and will detach itself from those that are descending. If this movement be carefully considered, it will be perceived that the web, in unfolding itself, acts in the same manner upon the radii as two ropes would, if they were hung to the extremities of the opposite radii in succession. The two radii which are opposite may be considered as a lever of the first sort, where the centre is in the middle of the lever; as each end moves through an equal space, there is no mechanical advantage. But if this skeleton-pulley be employed as a common *block* or *tackle* its motions and properties will be entirely different.

EXPERIMENT X. PLATE 2. FIG. 9.

Nail a piece of girth-web to a post, at the distance of three or four feet from the ground; fasten the other end of it to one of the radii. Fasten another piece of web to the opposite radius, and let a boy hold the skeleton-pulley suspended by the web; hook weights to the strap that hangs from the centre. The end of the radius to which the fixed girth-web is fastened will remain im-

moveable; but, if the boy pulls the web which he holds in his hand upward, he will be able to lift nearly double the weight which he can raise from the ground by a simple rope, without the machine, and he will perceive that his hand moves through twice as great a space as the weight ascends: he has, therefore, the mechanical advantage which he would have by a lever of the second sort, as in Experiment III. Let a piece of web be put round the under radii; let one end of it be nailed to the post, and the other be held by the boy, and it will represent the application of a rope to a moveable pulley; if its motion be carefully considered, it will appear that the radii, as they successively apply themselves to the web, represent a series of levers of the second kind. A pulley is nothing more than an infinite number of such levers; the cord at one end of the diameter serving as a fulcrum for the *organ* during its progress. If this *skeleton-pulley* be used horizontally instead of perpendicularly, the circumstances which have been mentioned will appear more obvious.

Upon the wooden road lay down a piece of girth-web; nail one end of it to the road; place the pulley upon the web at the other end of the board, and, bringing the web over the radii, let the boy, taking hold of it, draw the loaded sledge fastened to the hook at the centre of the pulley: he will draw nearly twice as much in this manner as he could without the pulley.*

Here the web, lying on the road, shows more distinctly that it is quiescent where the lowest radius touches it; and if the radii, as they tread upon it, are observed, their points will appear at rest, while the centre of the pulley will go as fast as the sledge, and the top of each radius successively (and the boy's hand which unfolds the web) will move twice as fast as the centre of the pulley and the sledge.

If a person holding a stick in his hand observes the relative motions of the top, and the middle, and the bottom of the stick, while he inclines it, he will see that the bottom of the stick has no motion on the ground, and that the middle has only half the motion of the top. This property of the pulley has been dwelt upon, because

* In all these experiments with the skeleton-pulley, somebody must keep it in its proper direction; as from its structure, which is contrived for illustration, not for practical use, it cannot retain its proper situation without assistance.

it elucidates the motion of a wheel rolling upon the ground; and it explains a common paradox, which appears at first inexplicable. "The bottom of a rolling wheel never moves *upon* the road." This is asserted only of a wheel moving over hard ground, which, in fact, may be considered rather as laying down its circumference upon the road, than as moving upon it.

The inclined Plane and the Wedge.

The *inclined plane* is to be next considered. When a heavy body is to be raised, it is often convenient to lay a sloping, artificial road of planks, up which it may be pushed or drawn. This mechanical power, however, is but of little service without the assistance of wheels or rollers; we shall, therefore, speak of it as it is applied in another manner, under the name of *the wedge*, which is, in fact, a moving inclined plane; but if it is required to explain the properties of the inclined plane by the Panorganon, the wooden road may be raised and set to any inclination that is required, and the sledge may be drawn upon it as in the former experiments.

Let one end of a lever, N, Plate 2. Fig. 7., with a wheel at one end of it, be hinged to the post of the frame, by means of a gudgeon driven or screwed into the post. To prevent this lever from deviating sideways, let a slip of wood be connected with it by a nail, which shall be fast in the lever, but which moves freely in a hole in the rail. The other end of this slip must be fastened to a stake driven into the ground at three or four feet from the lever, at one side of it, and towards the end in which the wheel is fixed (Plate 2. Fig. 10. which is a *vue d'oiseau*), in the same manner as the treadle of a common lathe is managed, and as the treadle of a loom is sometimes guided.*

EXPERIMENT XI.

Under the wheel of this lever place an inclined plane or half-wedge (Plate 2. Fig. 7.) on the wooden road, with rollers under it, to prevent friction;† fasten a rope

* In a loom, this secondary lever is called *a lamb*, by mistake, for *lam*, from *lamina*, a slip of wood.

† There should be three rollers used; one of them must be placed before the sledge, under which it will easily find its place, if the bottom of the sledge near the foremost end is a little sloped upward. To retain this foremost roller in its place until the sledge meets it, it should be stuck lightly on the road with two small bits of wax or pitch.

to the foremost end of the wedge, and pass it through the pulleys (P 4 and P 3) as in the fifth experiment. Let a boy draw the sledge by this rope over his shoulder, and he will find, that as it advances it will raise the weight upward; the wedge is five feet long, and elevated one foot. Now, if the perpendicular ascent of the weight, and the space through which he advances, be compared, he will find that the space through which he has passed will be five times as great as that through which the weight has ascended; and that *this* wedge has enabled him to raise five times as much as he could raise without it, if his strength were applied, as in Experiment 1., without any mechanical advantage. By making this wedge in two parts hinged together, with a graduated piece to keep them asunder, the wedge may be adjusted to any given obliquity; and it will be always found, that the mechanical advantage of the wedge may be ascertained by comparing its perpendicular elevation with its base. If the base of the wedge is 2, 3, 4, 5, or any other number of times greater than its height, it will enable the boy to raise respectively 2, 3, 4, or 5 times more weight than he could do in Experiment 1., by which his power is estimated.

The Screw.

The screw is an inclined plane wound round a cylinder; the height of all its revolutions round the cylinder taken together, compared with the space through which the power that turns it passes, is the measure of its *mechanical advantage*.* Let the lever used in the last experiment be turned in such a manner as to reach from its gudgeon to the shaft of the Panorganon, guided by an attendant lever as before. (Plate 2. Fig. 8.) Let the wheel rest upon the lowest *helix* or thread of the screw: as the arms of the shaft are turned round the wheel will ascend, and carry up the weight which is fastened to the lever.† As the situation of the screw prevents the weight from being suspended exactly from

* *Mechanical advantage* is not a proper term, but our language is deficient in proper technical terms. The word *power* is used so indiscriminately, that it is scarcely possible to convey our meaning without employing it more strictly.

† In this experiment, the boy should pull as near as possible to the shaft, within a foot of it, for instance, else he will have such mechanical advantage as cannot be counterbalanced by any weight which the machine would be strong enough to bear.

the centre of the screw, proper allowance must be made for this in estimating the force of the screw, or determining the mechanical advantage gained by the lever: this can be done by measuring the perpendicular ascent of the weight, which in all cases is better, and more expeditious, than measuring the parts of a machine, and estimating its force by calculation; because the different diameters of ropes, and other small circumstances, are frequently mistaken in estimates.

The space passed through by the moving power and by that which it moves, are infallible data for estimating the powers of engines. Two material subjects of experiments yet remain for the Panorganon; friction, and wheels of carriages: but we have already extended this article far beyond its just proportion to similar chapters in this work. We repeat, that it is not intended in this, or in any other part of our design, to write treatises upon science; but merely to point out methods for initiating young people in the rudiments of knowledge, and of giving them a clear and distinct view of those principles upon which they are founded. No preceptor who has had experience, will cavil at the superficial knowledge of a boy of twelve or thirteen upon these subjects; he will perceive, that the general view which we wish to give our pupils of the useful arts and sciences, must certainly tend to form a taste for literature and investigation. The *sciolist* has learned only to *talk*—we wish to teach our pupils to *think*, upon the various objects of human speculation.

The Panorganon may be employed in trying the resistance of air and water; the force of different muscles; and in a great variety of amusing and useful experiments. In academies and private families it may be erected in the place allotted for amusement, where it will furnish entertainment for many a vacant hour. When it has lost its novelty, the shaft may from time to time be taken down, and a swing may be suspended in its place. It may be constructed at the expense of five or six pounds: that which stands before our window was made for less than three guineas, as we had many of the materials beside us for other purposes.

CHAPTER XVIII.

CHYMISTRY.

In the first attempts to teach chymistry to children, objects should be selected, the principal properties of which may be easily discriminated by the senses of touch, taste, or smell; and such terms should be employed as do not require accurate definition.

When a child has been caught in a shower of snow, he goes to the fire to warm and dry himself. After he has been before the fire for some time, instead of becoming dry, he finds that he is wetter than he was before: water drops from his hat and clothes, and the snow with which he was covered disappears. If you ask him what has become of the snow, and why he has become wetter, he cannot tell you. Give him a teacup of snow, desire him to place it before the fire, he perceives that the snow melts, that it becomes water. If he puts his finger into the water, he finds that it is warmer than snow; he then perceives that the fire which warmed him warmed likewise the snow, which then became water; or, in other words, he discovers that the heat which came from the fire goes into the snow and melts it: he thus acquires the idea of the dissolution of snow by heat.

If the cup containing the water, or melted snow, be taken from the fire and put out of the window on a frosty day, he perceives that in time the water grows colder; that a thin, brittle skin spreads over it, which grows thicker by degrees, till at length all the water becomes ice; and if the cup be again put before the fire, the ice returns to water. Thus he discovers, that by diminishing the heat of water, it becomes ice; by adding heat to ice, it becomes water.

A child watches the drops of melted sealing-wax as they fall upon paper. When he sees you stir the wax about, and perceives that what was formerly hard now becomes soft and very hot, he will apply his former knowledge of the effects of heat upon ice and snow, and he will tell you that the heat of the candle melts the wax.

By these means, the principle of the solution of bodies by heat will be imprinted upon his memory; and you may now enlarge his ideas of solution.

When a lump of sugar is put into a dish of hot tea, a child sees that it becomes less and less, till at last it disappears. What has become of the sugar? Your pupil will say that it is melted by the heat of the tea: but if it be put into cold tea, or cold water, he will find that it dissolves, though more slowly. You should then show him some fine sand, some clay, and chalk, thrown into water; and he will perceive the difference between mechanical mixture and diffusion, or chymical mixture. Chymical mixture, as that of sugar in water, depends upon the attraction that subsists between the parts of the solid and fluid which are combined. Mechanical mixture is only the suspension of the parts of a solid in a fluid. When fine sand, chalk, or clay is put into water, the water continues for some time turbid or muddy; but by degrees the sand, &c. falls to the bottom, and the water becomes clear. In the chymical mixture of sugar and water there is no muddiness; the fluid is clear and transparent, even while it is stirred, and when it is at rest, there is no sediment; the sugar is joined with the water; a new fluid substance is formed out of the two simple bodies, sugar and water, and though the parts which compose the mixture are not discernible to the eye, yet they are perceptible by the taste.

After he has observed the mixture, the child should be asked whether he knows any method by which he can separate the sugar from the water. In the boiling of a kettle of water, he has seen the steam which issues from the mouth of the vessel; he knows that the steam is formed by the heat from the fire, which, joining with the water, drives its parts farther asunder, and makes it take another form, that of vapour or steam. He may apply this knowledge to the separation of the sugar and water; he may turn the water into steam, and the sugar will be left in a vessel in a solid form. If, instead of evaporating the water, the boy had added a greater quantity of sugar to the mixture, he would have seen that after a certain time the water would dissolve no more of the sugar; the superfluous sugar would fall to the bottom of the vessel as the sand had done: the pupil should then be told that the liquid is *saturated* with the solid.

By these simple experiments, a child may acquire a general knowledge of solution, evaporation, and saturation, without the formality of a lecture or the apparatus of a chymist. In all your attempts to instruct him in chymistry, the greatest care should be taken that he should completely understand one experiment before you proceed to another. The common metaphorical expression, that the mind should have time to digest the food which it receives, is founded upon fact and observation.

Our pupil should see the solution of a variety of substances in fluids, as salt in water; marble, chalk, or alkalis, in acids; and camphire in spirits of wine: this last experiment he may try by himself, as it is not dangerous. Certainly many experiments are dangerous, and therefore unfit for children; but others may be selected, which they may safely try without any assistance; and the dangerous experiments may, when they are necessary, be shown to them by some careful person. Their first experiments should be such as they can readily execute, and of which the result may probably be successful: this success will please and interest the pupils, and will encourage them to perseverance.

A child may have some spirit of wine and some camphire given to him: the camphire will dissolve in the spirit of wine, the spirit is saturated; but then he will be at a loss how to separate them again. To separate them, he must pour into the mixture a considerable quantity of water; he will immediately see the liquor, which was transparent, become muddy and white: this is owing to the separation of the camphire from the spirit; the camphire falls to the bottom of the vessel in the form of a curd. If the child had weighed the camphire, both before and after its solution, he would have found the result nearly the same. He should be informed that this *chymical operation* (for technical terms should now be used) is called *precipitation:* the substance that is separated from the mixture by the introduction of another body, is cast down, or precipitated from the mixture. In this instance, the spirit of wine attracted the camphire, and therefore dissolved it. When the water was poured in, the spirit of wine attracted the water more strongly than it did the camphire; the camphire being let loose, fell to the bottom of the vessel.

The pupil has now been shown two methods by

which a solid may be separated from a fluid in which it has been dissolved.

A still should now be produced, and the pupil should be instructed in the nature of distillation. By experiments he will learn the difference between the *volatility* of different bodies; or, in other words, he will learn that some are made fluid, or are turned into vapour, by a greater or less degree of heat than others. The degrees of heat should be shown to him by the thermometer; and the use of the thermometer, and its nature, should be explained. As the pupil already knows that most bodies expand by heat, he will readily understand, that an increase of heat expands the mercury in the bulb of the thermometer, which, having no other space for its expansion, rises in the small glass tube; and that the degree of heat to which it is exposed, is marked by the figures on the scale of the instrument.

The business of distillation is to separate the more volatile from the less volatile of two bodies. The whole mixture is put into a vessel, under which there is fire: the most volatile liquor begins first to turn into vapour, and rises into a higher vessel, which, being kept cold by water or snow, condenses the evaporated fluid; after it has been condensed, it drops into another vessel. In the experiment that the child has just tried, after having separated the camphire from the spirit of wine by precipitation, he may separate the spirit from the water by distillation. When the substance that rises, or that is separated from other bodies by heat, is a solid, or when what is collected after the operation is solid, the process is not called distillation, but sublimation.

Our pupil may next be made acquainted with the general qualities of acids and alkalis. For instructing him in this part of chymistry, definition should as much as possible be avoided; example, and ocular demonstration, should be pursued. Who would begin to explain by words the difference between an acid and an alkali, when these can be shown by experiments upon the substances themselves? The first great difference which is perceptible between an acid and an alkali, is their taste. Let a child have a distinct perception of the difference of their tastes; let him be able to distinguish them when his eyes are shut; let him taste the strongest of each, so as not to hurt him; and when he has once acquired distinct notions of the pungent taste of

an alkali and of the sour taste of an acid, he will never forget the difference. He must afterward see the effects of an acid and an alkali on the blue colour of vegetables at *separate times*, and not on the same day; by these means he will more easily remember the experiments, and he will not confound their different results. The blue colour of vegetables is turned red by acids and green by alkalis. Let your pupil take a radish, and scrape off the blue part into water; it should be left for some time, until the water becomes of a blue colour: let him pour some of this liquor into two glasses; add vinegar or lemon juice to one of them, and the liquor will become red; dissolve some alkali in water, and pour this into the other glass, and the dissolved radish will become green. If into the red mixture alkali be poured, the colour will change into green; and if into the liquor which was made green, acid be poured, the colour will change to red: thus alternately you may pour acid or alkali, and produce a red or green colour successively. Paper stained with the blue colour of vegetables is called *test* paper; this is changed by the least powerful of the acids or alkalis, and will, therefore, be peculiarly useful in the first experiments of our young pupils. A child should for safety use the weakest acids in his first trials, but he should be shown that the effects are similar, whatever acids we employ; only the colour will be darker when we make use of the strong, than when we use the weak acids. By degrees the pupil should be accustomed to employ the strong acids; such as the vitriolic, the nitric, and the muriatic, which three are called fossil acids, to distinguish them from the vegetable, or weaker acids. We may be permitted to advise the young chymist to acquire the habit of wiping the neck of the vessel out of which he pours any strong acid, as the drops of the liquor will not then burn his hand when he takes hold of the bottle; nor will they injure the table upon which he is at work. This custom, trivial as it may seem, is of advantage, as it gives an appearance of order, and of ease and steadiness, which are all necessary in trying chymical experiments. The little pupil may be told, that the custom which we have just mentioned is the constant practice of the great chymist, Dr. Black.

We should take care how we first use the term *salt* in speaking to a child, lest he should acquire indis-

tinct ideas: he should be told that the kind of salt which he eats is not the only salt in the world; he may be put in mind of the kind of salts which he has, perhaps, smelt in smelling-bottles; and he should be farther told, that there are a number of earthy, alkaline, and metallic salts, with which he will in time become acquainted.

When an acid is put upon an alkali, or upon limestone, chalk, or marl, a bubbling may be observed, and a noise is heard; a child should be told that this is called *effervescence*. After some time the effervescence ceases, and the limestone, &c. is dissolved in the acid. This effervescence, the child should be informed, arises from the escape of a considerable quantity of a particular sort of air, called fixed air, or carbonic acid gas. In the solution of the lime in the acid, the lime and acid have an attraction for one another; but as the present mixture has no attraction for the gas, it escapes, and in rising forms the bubbling or effervescence. This may be proved to a child, by showing him that if an acid is poured upon caustic lime (lime which has had this gas taken from it by fire) there will be no effervescence.

There are various other chymical experiments with which children may amuse themselves; they may be employed in analyzing marl, or clays; they may be provided with materials for making ink or soap. It should be pointed out to them, that the common domestic and culinary operations of making butter and cheese, baking, brewing, &c., are all chymical processes. We hope the reader will not imagine, that we have in this slight sketch pretended to point out the *best* experiments which can be devised for children; we have only offered a few of the simplest which occurred to us, that parents may not, at the conclusion of this chapter, exclaim, "What is to be done? How are we to *begin?* What experiments are suited to children? If we knew, our children should try them."

It is of little consequence what particular experiment is selected for the first; we only wish to show that the minds of children may be turned to this subject; and that, by accustoming them to observation, we give them not only the power of learning what has been already discovered, but of adding, as they grow older, something to the general stock of human knowledge.

CHAPTER XIX.

ON PUBLIC AND PRIVATE EDUCATION.

The anxious parent, after what has been said concerning tasks and classical literature, will inquire whether the whole plan of education recommended in the following pages is intended to relate to public or to private education. It is intended to relate to both. It is not usual to send children to school before they are eight or nine years old: our first object is to show how education may be conducted to that age in such a manner, that children may be well prepared for the acquisition of all the knowledge usually taught at schools, and may be perfectly free from many of the faults that pupils sometimes have acquired before they are sent to any public seminary. It is obvious, that public preceptors would be saved much useless labour and anxiety, were parents to take some pains in the previous instruction of their children; and more especially, if they were to prevent them from learning a taste for total idleness, or habits of obstinacy and of falsehood, which can scarcely be conquered by the utmost care and vigilance. We can assure parents, from experience, that if they pursue steadily a proper plan with regard to the understanding and the moral habits, they will not have much trouble with the education of their children after the age we have mentioned, as long as they continue to instruct them at home; and if they send them to public schools, their superiority in intellect and in conduct will quickly appear. Though we have been principally attentive to all the circumstances which can be essential to the management of young people during the first nine or ten years of their lives, we have by no means confined our observations to this period alone; but we have endeavoured to lay before parents a general view of the human mind (as far as it relates to our subject), of proper methods of teaching, and of the objects of rational instruction—so that they may extend the prin-

ciples which we have laid down, through all the succeeding periods of education, and may apply them as it may best suit their peculiar situations or their peculiar wishes. We are fully conscious that we have executed but very imperfectly even our own design; that experimental education is yet but in its infancy, and that boundless space for improvement remains; but we flatter ourselves, that attentive parents and preceptors will consider with candour the practical assistance which is offered to them, especially as we have endeavoured to express our opinions without dogmatical presumption, and without the illiberal exclusion of any existing institutions or prevailing systems. People who, even with the best intentions, attack with violence any of these, and who do not consider what is practicable, as well as what ought to be done, are not likely to persuade or to convince mankind; to increase the general sum of happiness, or their own portion of felicity. Those who really desire to be of service to society, should point out decidedly, but with temperate indulgence for the feelings and opinions of others, whatever appears to them absurd or reprehensible in any prevailing customs: having done this, they will rest in the persuasion that what is most reasonable will ultimately prevail.

Mankind, at least the prudent and rational part of mankind, have an aversion to pull down, till they have a moral certainty that they can build up a better edifice than that which has been destroyed. "Would you," says an eminent writer, "convince me that the house I live in is a bad one, and would you persuade me to quit it; build a better in my neighbourhood; I shall be very ready to go into it, and shall return you my very sincere thanks." Till another house be ready, a wise man will stay in his old one, however inconvenient its arrangement, however seducing the plans of the enthusiastic projector. We do not set up for projectors or reformers: we wish to keep steadily in view the actual state of things, as well as our own hopes of progressive improvement; and to seize and combine all that can be immediately serviceable; all that can assist, without precipitating improvements. Every well-informed parent, and every liberal schoolmaster, must be sensible that there are many circumstances in the management of public education which might be condemned with reason; that too much time is sacrificed to the study of

the learned languages; that too little attention is paid to the general improvement of the understanding and formation of the moral character; that a schoolmaster cannot pay attention to the temper or habits of each of his numerous scholars; and that parents, during that portion of the year which their children spend with them, are not sufficiently solicitous to co-operate with the views of the schoolmaster; so that the public is counteracted by the private education. These, and many other things, we have heard objected to schools; but what are we to put in the place of schools? How are vast numbers who are themselves occupied in public or professional pursuits, how are men in business or in trade, artists or manufacturers, to educate their families, when they have not time to attend to them; when they may not think themselves perfectly prepared to undertake the classical instruction and entire education of several boys; and when, perhaps, they may not be in circumstances to engage the assistance of such a preceptor as they could approve? It is obvious, that if in such situations parents were to attempt to educate their children at home, they would harass themselves and probably spoil their pupils, irrecoverably. It would, therefore, be in every respect impolitic and cruel to disgust those with public schools who have no other resource for the education of their families. There is another reason which has perhaps operated, unperceived upon many in the middle ranks of life, and which determines them in favour of public education. Persons of narrow fortune, or persons who have acquired wealth in business, are often desirous of breeding up their sons to the liberal professions: and they are conscious that the company, the language, and the style of life, which their children would be accustomed to at home, are beneath what would be suited to their future professions. Public schools efface this rusticity, and correct the faults of provincial dialect: in this point of view they are highly advantageous. We strongly recommend it to such parents to send their children to large public schools, to Rugby, Eton, or Westminster; not to any small school; much less to one in their own neighbourhood. Small schools are apt to be filled with persons of nearly the same stations and out of the same neighbourhood: from this circumstance, they contribute to perpetuate uncouth, antiquated idioms, and many of those obscure

prejudices which cloud the intellect in the future business of life.

While we admit the necessity which compels the largest portion of society to prefer public seminaries of education, it is incumbent upon us to caution parents against expecting that the moral character, the understandings, or the tempers of their children, should be improved at large schools ; there the learned languages, we acknowledge, are successfully taught. Many satisfy themselves with the assertion, that public education is the least troublesome ; that a boy once sent to school is settled for several years of life, and will require only short returns of parental care twice a year, at the holydays. It is hardly to be supposed that those who think in this manner should have paid any anxious, or at least any judicious attention, to the education of their children, previous to sending them to school. It is not likely that they should be very solicitous about the commencement of an education which they never meant to finish : they would think that what could be done during the first few years of life, is of little consequence ; that children from four to seven years old are too young to be taught ; and that a school would speedily supply all deficiencies, and correct all those faults which begin at that age to be troublesome at home. Thus to a public school, as to a general infirmary for mental disease, all desperate subjects are sent, as the last resource. They take with them the contagion of their vices, which quickly runs through the whole tribe of their companions, especially among those who happen to be nearly of their own age, whose sympathy peculiarly exposes them to the danger of infection. We are often told, that as young people have the strongest sympathy with each other, they will learn most effectually from each other's example. They do learn quickly from example, and this is one of the dangers of a public school : a danger which is not necessary, but incidental ; a danger against which no schoolmaster can possibly guard, but which parents can, by the previous education of the pupils, prevent. Boys are led, driven, or carried to school ; and in a schoolroom they first meet with those who are to be their fellow-prisoners. They do not come with fresh, unprejudiced minds, to commence their course of social education ; they bring with them all the ideas and habits

which they have already learned at their respective homes. It is highly unreasonable to expect, that all these habits should be reformed by a public preceptor. If he had patience, how could he have time for such an undertaking? Those who have never attempted to break a pupil of any one bad habit, have no idea of the degree of patience requisite to success. We once heard an officer of dragoons assert, that he would rather break twenty horses of their bad habits, than one man of his. The proportionate difficulty of teaching boys may be easily calculated.

It is sometimes asserted, that the novelty of a school life and the change of situation alter the habits, and form in boys a new character. Habits of eight or nine years standing cannot be instantaneously, perhaps can never be, radically destroyed: they will mix themselves imperceptibly with the new ideas which are planted in their minds; and though these may strike the eye by the rapidity of their growth, the others, which have taken a strong root, will not easily be dispossessed of the soil. In this new character, as it is called, there will, to a discerning eye, appear a strong mixture of the old disposition. The boy who at home lived with his father's servants, and was never taught to love any species of literature, will not acquire a taste for it at school, merely by being compelled to learn his lessons; the boy who at home was suffered to be the little tyrant of a family, will, it is true, be forced to submit to superior strength or superior numbers at school;* but does it improve the temper to practise alternately the habits of a tyrant and a slave? The lesson which experience usually teaches to the temper of a schoolboy, is, that strength, and power, and cunning, will inevitably govern in society: as to reason, it is out of the question; it would be hissed or laughed out of the company. With respect to social virtues, they are commonly among schoolboys so much mixed with party spirit, that they mislead even the best dispositions. A boy at home, whose pleasures are all immediately connected with the idea of self, will not feel a sudden enlargement of mind from entering a public school. He will, probably, preserve his selfish character in his new society; or,

* See Barne's Essay on Public and Private Education. Manchester Society.

even suppose he catches that of his companions, the progress is not great, in moral education, from selfishness to spirit of party: the one is a despicable, the other a dangerous, principle of action. It has been observed, that what we are when we are twenty, depends on what we were when we were ten years old. What a young man is at college, depends upon what he was at school; and what he is at school, depends upon what he was before he went to school. In his father's house, the first important lessons, those which decide his future abilities and character, must be learned. We have repeated this idea, and placed it in different points of view, in hopes that it will catch and fix the attention. Suppose that parents educated their children well for the first eight or nine years of their lives, and then sent them all to public seminaries; what a difference this must immediately make in public education: the boys would be disposed to improve themselves with all the ardour which the most sanguine preceptor would desire; their tutors would find that there was nothing to be *unlearned*; no habits of idleness to conquer; no perverse stupidity would provoke them; no capricious contempt of application would appear in pupils of the quickest abilities. The moral education could then be made a part of the preceptor's care, with some hopes of success; the pupils would all have learned the first necessary moral principles and habits; they would, consequently, be all fit companions for each other; in each other's society they would continue to be governed by the same ideas of right and wrong by which they had been governed all their lives; they would not have any new character to learn; they would improve, by mixing with numbers, the social virtues, without learning party spirit; and though they would love their companions, they would not, therefore, combine together to treat their instructers as pedagogues and tyrants. This may be thought an Utopian idea of a school; indeed it is very improbable, that out of the numbers of parents who send their children to large schools, many should suddenly be much moved by any thing that we can say, to persuade them to take serious trouble in their previous instruction. But much may be effected by gradual attempts. Ten well-educated boys, sent to a public seminary at nine or ten years old, would, probably, far surpass their competitors in every respect; they would inspire others

with so much emulation, would do their parents and preceptors so much credit, that numbers would eagerly inquire into the causes of their superiority; and these boys would, perhaps, do more good by their example, than by their actual acquirements. We do not mean to promise, that a boy judiciously educated shall appear at ten years old a prodigy of learning; far from it: we should not even estimate his capacity, or the chain of his future progress, by the quantity of knowledge stored in his memory, by the number of Latin lines he has got by rote, by his expertness in repeating the rules of his grammar, by his pointing out a number of places readily in a map, or even by his knowing the latitude and longitude of all the capital cities in Europe; these are all useful articles of knowledge; but they are not the test of a good education. We should rather, if we were to examine a boy of ten years old, for the credit of his parents, produce proofs of his being able to reason accurately, of his quickness in invention, of his habits of industry and application, of his having learned to generalize his ideas, and to apply his observations and his principles: if we found that he had learned all or any of these things, we should be in little pain about grammar, or geography, or even Latin; we should be tolerably certain that he would not long remain deficient in any of these; we should know that he would overtake and surpass a competitor who had only been technically taught, as certainly as the giant would overtake the panting dwarf, who might have many miles the start of him in the race. We do not mean to say that a boy should not be taught the principles of grammar, and some knowledge of geography, at the same time that his understanding is cultivated in the most enlarged manner: these objects are not incompatible; and we particularly recommend it to *parents who intend to send their children to school*, early to give them confidence in themselves, by securing the rudiments of literary education; otherwise their pupils, with a real superiority of understanding, may feel depressed, and may, perhaps, be despised, when they mix at a public school with numbers who will estimate their abilities merely by their proficiency in particular studies.

Mr. Frend,* in recommending the study of arithmetic

* See Mr. Frend's Principles of Algebra.

for young people, has very sensibly remarked, that boys bred up in public schools are apt to compare themselves with each other merely as classical scholars; and, when they afterward go into the world excellent Greek and Latin scholars, are much astonished to perceive, that many of the companions whom they had undervalued at school, get before them when they come to actual business and to actual life. Many, in the pursuit of their classical studies, have neglected all other knowledge, especially that of arithmetic, that useful, essential branch of knowledge, without which neither the abstract sciences nor practical arts can be taught. The precision which the habit of applying the common rules of arithmetic gives to the understanding, is highly advantageous, particularly to young people of vivacity, or, as others would say, of genius. The influence which the habit of estimating has upon that part of the moral character called prudence, is of material consequence. We shall farther explain upon this subject, when we speak of the means of teaching arithmetic and reasoning to children; we only mention the general ideas here, to induce intelligent parents to attend early to these particulars. If they mean to send their children to public classical schools, it must be peculiarly advantageous to teach them early the rudiments of arithmetic, and to give them the habit of applying their knowledge in the common business of life. We forbear to enumerate other useful things, which might easily be taught to young people before they leave home, because we do not wish to terrify with the apprehension, that a perplexing variety of things are to be taught. One thing well taught, is better than a hundred taught imperfectly.

The effect of the pains which are taken in the first nine or ten years of a child's life, may not be apparent immediately to the view, but it will gradually become visible. To careless observers, two boys of nine years old, who have been very differently educated, may appear nearly alike in abilities, in temper, and in the promise of future character. Send them both to a large public school, let them be placed in the same new situation, and exposed to the same trials, the difference will then appear: the difference in a few years will be such as to strike every eye, and people will wonder what can have produced, in so short a time, such an amazing change. In the Hindoo art of dying, the same liquors communi-

cate different colours to particular spots, according to the several bases previously applied: to the ignorant eye, no difference is discernible in the ground, nor can the design be distinctly traced till the air, and light, and open exposure, bring out the bright and permanent colours to the wondering eye of the spectator.

Besides bestowing some attention upon early education, parents who send their children to school may much assist the public preceptor, by judicious conduct towards children during the portion of the year which is usually spent at home.* Mistaken parental fondness delights to make the period of time which children spend at home, as striking a contrast as possible with that which they pass at school. The holydays are made a jubilee, or, rather, resemble the Saturnalia. Even if parents do not wish to represent a schoolmaster as a tyrant, they are by no means displeased to observe that he is not the friend or favourite of their children. They put themselves in mean competition with him for their affection, instead of co-operating with him in all his views for their advantage. How is it possible that any master can long retain the wish or the hope of succeeding in any plan of education, if he perceives that his pupils are but partially under his government; if his influence over their minds be counteracted from time to time by the superior influence of their parents?—an influence which he must not wish to destroy. To him is left the power to punish, it is true; but parents reserve to themselves the privilege to reward. The ancients did not suppose that even Jupiter could govern the world without the command of pain and pleasure. Upon the vases near his throne, depended his influence over mankind.

And what are these holyday delights?—and in what consist paternal rewards? In dissipation and idleness. With these are consequently associated the idea of happiness and the name of pleasure; the name is often sufficient, without the reality. During the vacation, children have a glimpse of what is called *the world;* and then are sent back to their prison with heads full of visions of liberty, and with a second-sight of the blessed lives which they are to lead when they have left school for ever. What man of sense who has studied the human mind, who knows that the success of any plan of

* See Williams's Lectures on Education.

education must depend upon the concurrence of every person and every circumstance, for years together, to the same point, would undertake any thing more than the partial instruction of pupils, whose leading associations and habits must be perpetually broken? When the work of school is undone during the holydays, what hand could have the patience perpetually to repair the web?

During the vacations spent at home, children may be made extremely happy in the society and in the affections of their friends,—but they need not be taught that idleness is pleasure: on the contrary, occupation should, by all possible methods, be rendered agreeable to them; their school acquisitions, their knowledge and taste, should be drawn out in conversation, and they should be made to feel the value of what they have been taught; by these means there would be some connexion, some unity of design, preserved in their education. Their schoolmasters and tutors should never become the theme of insipid ridicule; nor should parents ever put their influence in competition with that of a preceptor: on the contrary, his pupils should uniformly perceive, that from his authority there is no appeal, except to the superior power of reason, which should be the avowed arbiter to which all should be submitted.

Some of the dangerous effects of that mixed society at schools of which we have complained, may be counteracted by the judicious conduct of parents during the time which children spend at home. A better view of society, more enlarged ideas of friendship and of justice, may be given to young people, and the vile principle of party spirit may be treated with just contempt and ridicule. Some standard, some rules may be taught to them, by which they may judge of character independently of prejudice or childish prepossession.

> "I do not like you, Doctor Fell;
> The reason why, I cannot tell
> But this I know full well,
> I do not like you, Doctor Fell"—

is an exact specimen of the usual mode of reasoning, of the usual method in which an ill-educated schoolboy expresses his opinion and feelings about all persons and all things. "The reason why" should always be inquired whenever children express preference or aversion.

To connect the idea of childhood with that of inferi-

ty and contempt, is unjust and impolitic; it should not be made a reproach to young people to be young, nor should it be pointed out to them, that when they are some years older they will be more respected; the degree of respect which they really command, whether in youth or age, will depend upon their own conduct, their knowledge, and their powers of being useful and agreeable to others. If they are convinced of this, children will not at eight years old long to be fifteen, or at fifteen to be one-and-twenty; proper subordination would be preserved, and the scale of happiness would not have a forced and false connexion with that of age. If parents did not at first excite foolish wishes in the minds of their children, and then imprudently promise that these wishes shall be gratified at certain periods of their existence, children would not be impatient to pass over the years of childhood; those years which idle boys wish to pass over as quickly as possible, men without occupation regret as the happiest of their existence. To a child who has been promised that he shall put on manly apparel on his next birthday, the pace of time is slow and heavy until that happy era arrive. Fix the day when a boy shall leave school, and he wishes instantly to mount the chariot, and lash the horses of the sun. Nor when he enters the world, will his restless spirit be satisfied; the first step gained, he looks anxiously forward to the height of manly elevation,

"And the brisk minor pants for twenty-one."

These juvenile anticipations diminish the real happiness of life; those who are in continual expectation, never enjoy the present; the habit of expectation is dangerous to the mind—it suspends all industry, all voluntary exertion. Young men who early acquire this habit, find existence insipid to them without the immediate stimuli of hope and fear: no matter what the object is, they must have something to sigh for; a curricle, a cockade, or an opera-dancer.

Much may be done by education to prevent this boyish restlessness. Parents should refrain from those imprudent promises and slight innuendoes which the youthful imagination always misunderstands and exaggerates. Never let the moment in which a young man quits a seminary of education, be represented as a moment in which all instruction, labour, and restraints cease. The

idea that he must restrain and instruct himself, that he must complete his own education, should be excited in a young man's mind; nor should he be suffered to imagine that his education is finished, because he has attained to some given age.

When a common schoolboy bids adieu to that school which he has been taught to consider as a prison, he exults in his escape from books and masters, and from all the moral and intellectual discipline to which he imagines that it is the peculiar disgrace and misery of childhood to be condemned. He is impatient to be thought a man, but his ideas of the manly character are erroneous—consequently his ambition will only mislead him. From his companions while at school, from his father's acquaintance and his father's servants, with whom he has been suffered to consort during the vacations, he has collected imperfect notions of life, fashion, and society. These do not mix well in his mind with the examples and precepts of Greek and Roman virtue: a temporary enthusiasm may have been kindled in his soul by the eloquence of antiquity; but, for want of sympathy, this enthusiasm necessarily dies away. His heroes are not the heroes of the present times; the maxims of his sages are not easily introduced into the conversation of the day. At the tea-table he now seldom hears even the name of Plato; and he often blushes for not knowing a line from a popular English poet, while he could repeat a cento from Horace, Virgil, and Homer; or an antistrophe from Æschylus or Euripides. He feels ashamed to produce the knowledge he has acquired, because he has not learned sufficient address to produce it without pedantry. On his entrance into the world, there remains in his mind no grateful, no affectionate, no respectful remembrance of those under whose care he has passed so many years of his life. He has escaped from the restraints imposed by his schoolmaster, and the connexion is dissolved for ever.

But when a son separates from his father, if he has been well educated, he wishes to continue his own education: the course of his ideas is not suddenly broken; what he has been, joins immediately with what he is to be; his knowledge applies to real life—it is such as he can use in all companies; there is no sudden metamorphosis in any of the objects of his ambition; the boy and man are the same individual. Pleasure will not influ-

ence him merely by her name, or by the contrast of her appearance with the rigid discipline of scholastic learning; he will feel the difference between pleasure and happiness, and his early taste for domestic life will remain or return upon his mind. His old precepts and new motives are not at war with each other; his experience will confirm his education, and external circumstances will call forth his latent virtues. When he looks back, he can trace the gradual growth of his knowledge; when he looks forward, it is with the delightful hope of progressive improvement. A desire in some degree to repay the care, to deserve the esteem, to fulfil the animating prophecies, or to justify the fond hopes of the parent who has watched over his education, is one of the strongest motives to an ingenuous young man; it is an incentive to exertion in every honourable pursuit. A son who has been judiciously and kindly educated, will feel the value of his father's friendship. The perception that no man can be more entirely interested in every thing that concerns him, the idea that no one more than his father can share in his glory or in his disgrace, will press upon his heart, will rest upon his understanding. Upon these ideas, upon this common family interest, the real strength of the connexion between a father and his son depends. No public preceptor can have the same advantages; his connexion with his pupil is not necessarily formed to last.

After having spoken with freedom, but we hope with moderation, of public schools, we may, perhaps, be asked our opinion of universities. Are universities the most splendid repositories of learning? We are not afraid to declare an opinion in the negative. Smith, in his Wealth of Nations, has stated some objections to them, we think, with unanswerable force of reasoning. We do not, however, wish to destroy what we do not entirely approve. Far be that insanity from our minds which would, like Orlando, tear up the academic groves; the madness of innovation is as destructive as the bigotry of ancient establishments. The learning and the views of the rising century must have different objects from those of the wisdom and benevolence of Alfred, Balsham, or Wolsey; and, without depreciating or destroying the magnificence or establishments of universities, may not their institutions be improved? May not their splendid halls echo with other sounds than the

exploded metaphysics of the schools? And may not other learning be as much rewarded and esteemed as pure *latinity?*

We must here distinctly point out, that young men designed for the army or the navy, should not be educated in private families. The domestic habits, the learned leisure of private education, are unsuited to them; it would be absurd to waste many years in teaching them the elegances of classic literature, which can probably be of no essential use to them; it would be cruel to give them a nice and refined choice of right and wrong, when it will be their professional duty to act under the command of others; when implicit, prompt, unquestioning obedience, must be their first military virtue. Military academies, where the sciences practically essential to the professions are taught, must be the best situations for all young sailors and soldiers; strict institution is the best education for them. We do not here inquire how far these professions are necessary in society; it is obvious, that in the present state of European cultivation, soldiers and sailors are indispensable to every nation. We hope, however, that a taste for peace may, at some future period in the history of the world, succeed to the passion for military glory; and in the meantime we may safely recommend it to parents, never to trust a young man designed for a soldier to the care of a philosopher, even if it were possible to find one who would undertake the charge.

We hope that we have shown ourselves the friends of the public preceptor, that we have pointed out the practicable means of improving public institutions, by parental care and parental co-operation. But, until such a meliorating plan shall actually have been carried into effect, we cannot hesitate to assert, that even when the abilities of the parent are inferior to those of the public preceptor, the means of ensuring success preponderate in favour of private education. A father who has time, talents, and temper, to educate his family, is certainly the best possible preceptor; and his reward will be the highest degree of domestic felicity. If, from his situation, he is obliged to forego this reward, he may select some man of literature, sense, and integrity, to whom he can confide his children. Opulent families should not think any reward too munificent for such a private preceptor. Even in an economic point of view, it is

prudent to calculate how many thousands lavished on the turf, or lost at the gaming-table, might have been saved to the heirs of noble and wealthy families by a judicious education.

CHAPTER XX.

ON FEMALE ACCOMPLISHMENTS, MASTERS, AND GOVERNESSES.

Some years ago, an opera-dancer at Lyons, whose charms were upon the wane, applied to an English gentleman for a recommendation to some of his friends in England, as a governess for young ladies. "Do you doubt," said the lady (observing that the gentleman was somewhat confounded by the easy assurance of her request), "do you doubt my capability? Do I not speak good Parisian French? Have I any provincial accent? I will undertake to teach the language grammatically. And for music and dancing, without vanity, may I not pretend to teach them to any young person?" The lady's excellence in all these particulars was unquestionable. She was beyond dispute a highly accomplished woman. Pressed by her forcible interrogatories, the gentleman was compelled to hint, that an English mother of a family might be inconveniently inquisitive about the private history of a person who was to educate her daughters. "Oh," said the lady, "I can change my name, and, at my age, nobody will make farther inquiries."

Before we can determine how far this lady's pretensions were ill-founded, and before we can exactly decide what qualifications are most desirable in a governess, we must form some estimate of the positive and relative value of what are called accomplishments.

We are not going to attack any of them with cynical asperity, or with the ambition to establish any new dogmatical tenets in the place of old received opinions. It can, however, do no harm to discuss this important subject with proper reverence and humility. Without alarming those mothers who declare themselves above all things anxious for the rapid progress of their daughters in every fashionable accomplishment, it may be

innocently asked, what price such mothers are willing to pay for these *advantages*. Any price within the limits of our fortune! they will probably exclaim.

There are other standards by which we can measure the value of objects, as well as by money. "Fond mother, would you, if it were in your power, accept of an opera-dancer for your daughter's governess, upon condition that you should live to see that daughter dance the best minuet at a birthnight ball?"

"Not for the world," replies the mother. "Do you think I would hazard my daughter's innocence and reputation, for the sake of seeing her dance a good minuet? Shocking! Absurd! What can you mean by such an outrageous question?"

"To fix your attention. Where the mind has not precisely ascertained its wishes, it is sometimes useful to consider extremes; by determining what price you will *not* pay, we shall at length ascertain the value which you set upon the object. Reputation and innocence, you say, you will not, upon any account, hazard. But would you consent that your daughter should, by universal acclamation, be proclaimed the most accomplished woman in Europe, upon the simple condition that she should pass her days in a nunnery?"

"I should have no right to make such a condition; domestic happiness I ought certainly to prefer to public admiration for my daughter. Her accomplishments would be of little use to her, if she were to be shut up from the world: who is to be the judge of them in a nunnery?"

"I will say no more about the nunnery. But would not you, as a good mother, consent to have your daughter turned into an automaton for eight hours in every day for fifteen years, for the promise of hearing her, at the end of that time, pronounced the first private performer at the most fashionable and most crowded concert in London?"

"Eight hours a day for fifteen years are too much. No one need practise so much to become the first performer in England."

"That is another question. You have not told me whether you would sacrifice so much of your daughter's existence for such an object, supposing that you could obtain it at no other price."

"For *one* concert?" says the hesitating mother; "I

think it would be too high a price. Yet I would give any thing to have my daughter play better than any one in England. What a distinction! She would be immediately taken notice of in all companies! She might get into the first circles in London! She would want neither beauty nor fortune to recommend her! She would be a match for any man who has any taste for music! And music is universally admired, even by those who have the misfortune to have no taste for it. Besides, it is such an elegant accomplishment in itself! Such a constant source of innocent amusement! Putting every thing else out of the question, I should wish my daughter to have every possible accomplishment, because accomplishments are such charming *resources* for young women; they keep them out of harm's way; they make a vast deal of their idle time pass so pleasantly to themselves and others; this is my *chief* reason for liking them."

Here are so many reasons brought together at once, along with the chief reason, that they are altogether unanswerable: we must separate, class, and consider them one at a time. Accomplishments, it seems, are valuable, as being the objects of universal admiration. Some accomplishments have another species of value, as they are tickets of admission to fashionable company. Accomplishments have another, and a higher species of value, as they are supposed to increase a young lady's chance of a prize in the matrimonial lottery. Accomplishments have also a value as resources against ennui, as they afford continual amusement and innocent occupation. This is ostensibly their chief praise; it deserves to be considered with respect. False and odious must be that philosophy which would destroy any one of the innocent pleasures of our existence. No reward was thought too high for the invention of a new pleasure; no punishment would be thought too severe for those who would destroy an old one. Women are peculiarly restrained in their situation and in their employments, by the customs of society: to diminish the number of these employments, therefore, would be cruel; they should rather be encouraged, by all means, to cultivate those tastes which can attach them to their home, and which can preserve them from the miseries of dissipation. Every sedentary occupation must be valuable to those who are to lead sedentary

lives; and every art, however trifling in itself, which tends to enliven and embellish domestic life, must be advantageous, not only to the female sex, but to society in general. As far as accomplishments can contribute to all or any of these excellent purposes, they must be just objects of attention in early education.

A number of experiments have already been tried; let us examine the result. Out of the prodigious number of young women who learn music and drawing, for instance, how many are there, who, after they become mistresses of their own time, and after they have the choice of their own amusements, continue to practise these accomplishments for the pure pleasure of occupation? As soon as a young lady is married, does she not frequently discover that "she really has not *leisure* to cultivate talents which take up so much time?" Does she not complain of the labour of practising four or five hours a day to keep up her musical character? What motive has she for perseverance? She is, perhaps, already tired of playing to all her acquaintance. She may really take pleasure in hearing good music; but her own performance will not then please her ear so much as that of many others. She will prefer the more indolent pleasure of hearing the best music that can be heard for money at public concerts. She will then of course leave off playing, but continue very fond of music. How often is the labour of years thus lost for ever!

Those who have excelled in drawing do not appear to abandon the occupation so suddenly; it does not demand such an inordinate quantity of time to keep up the talent; the exertion of the imitative powers with apparent success, is agreeable; the employment is progressive, and therefore the mind is carried on to complete what has been begun. Independently of all applause which may be expected for the performance, there is a pleasure in going on with the work. But setting aside enthusiasm and habit, the probability that any sensible persons will continue to pursue a given employment, must depend, in a great measure, upon their own conviction of its utility, or of its being agreeable to those whom they wish to please. The pleasure which a lady's friends receive from her drawings, arises chiefly from the perception of their comparative excellence. Comparative excellence is all to which gentlewomen artists usually pretend all to which they expect

to attain; positive excellence is scarcely attained by one in a hundred. Compared with the performances of other young ladies of their acquaintance, the drawings of Miss X or Y may be justly considered as charming! admirable! and astonishing! But there are few drawings by young ladies which can be compared with those of a professed artist. The wishes of obliging friends are satisfied with a few drawings in handsome frames, to be hung up for the young lady's credit; and when it is allowed among their acquaintance that she draws in a *superior* style, the purpose of this part of her education is satisfactorily answered. We do not here speak of those few individuals who really *excel* in drawing, who have learned something more than the common routine which is usually learned from a drawing-master, who have acquired an agreeable talent, not for the mere purpose of exhibiting themselves, but for the sake of the occupation it affords, and the pleasure it may give to their *friends*. We have the pleasure of knowing some who exactly answer to this description, and who must feel themselves distinct and honourable exceptions to these general observations.

From whatever cause it arises, we may observe, that after young women are settled in life, their taste for drawing and music gradually declines. For this fact, we can appeal only to the recollection of individuals. We may hence form some estimate of the real value which ought to be put upon what are called accomplishments, *considered as occupations*. Hence we may also conclude, that parents do not form their judgments from the facts which they see every day in real life; or else may we not infer, that they deceive themselves as to their own motives; and that, among the reasons which make them so anxious about the accomplishments of their daughters, there are some secret motives more powerful than those which are usually openly acknowledged?

It is admitted in the cabinet council of mothers, that some share of the value of accomplishments depends upon the demand for them in the fashionable world. "A young lady," they say, "is nobody, and nothing, without accomplishments; they are as necessary to her as a fortune: they are indeed considered as part of her fortune, and sometimes are even found to supply the place of it. Next to beauty, they are the best tickets

of admission into society which she can produce; and everybody knows, that on the company she keeps depends the chance of a young woman's settling advantageously in the world."

To judge of what will please and attach men of superior sense and characters—we are not quite certain that these are the men who are to be considered first, when we speak of a young lady's settling *advantageously* in the world; but we will take this for granted—to judge of what will please and attach men of superior sense and characters, we must observe their actual conduct in life, and listen to their speculative opinions. Superficial accomplishments do not appear to be the objects of their preference. In enumerating the perfections of his wife, or in retracing the progress of his love, does a man of sense dwell upon his mistress's skill in drawing, or dancing, or music? No. These, he tells you, are extremely agreeable talents, but they could never have attached him; they are subordinate parts in her character; he is angry that you can rank them among her perfections; he knows that a thousand women possess these accomplishments, who have never touched his heart. He does not, perhaps, deny, that in Chloe, altogether, they have power to please, but he does not think them essential to her power.

The opinion of women who have seen a good deal of the world, is worth attending to upon this subject; especially if we can obtain it when their passions are wholly uninterested in their decision. Whatever may be the judgment of individuals concerning the character and politics of the celebrated Madame Roland, her opinion as a woman of abilities, and a woman who had seen a variety of life, will be thought deserving of attention. Her book was written at a time when she was in daily expectation of death, when she could have no motive to conceal her real sentiments upon any subject. She gives an account of her employments in prison, and, among others, mentions music and drawing.

"I then employed myself in drawing till dinner time. I had so long been out of the habit of using a pencil, that I could not expect to be very dexterous; but we commonly retain the power of repeating with pleasure, or at least of attempting with ease, whatever we have successfully practised in our youth. Therefore the study of the fine arts, considered as a part of female

education, should be attended to, much less with a view to the acquisition of superior talents, than with a desire to give women a taste for industry, the habit of application, and a greater variety of employments; for these assist us to escape from *ennui*, the most cruel disease of civilized society; by these we are preserved from the dangers of vice, and even from those seductions which are far more likely to lead us astray.

"I would not make my daughter a *performer*.* I remember that my mother was afraid that I should become a great musician, or that I should devote myself entirely to painting: she wished that I should, above all other things, love the duties of my sex: that I should be a good economist, a good mistress, as well as a good mother of a family. I wish my Eudora to be able to accompany her voice agreeably on the harp. I wish that she may play agreeably on the piano-forte; that she may know enough of drawing, to feel pleasure from the sight and from the examination of the finest pictures of the great painters; that she may be able to draw a flower that happens to please her; and that she may unite in her dress elegance and simplicity. I should wish that her talents might be such that they should neither excite the admiration of others, nor inspire her with vanity; I should wish that she should please by the general effect of her whole character, without ever striking anybody with astonishment at first sight; and that she should attach by her good qualities, rather than shine by her accomplishments."

Women cannot foresee what may be the tastes of the individuals with whom they are to pass their lives. Their own tastes should not, therefore, be early decided; they should, if possible, be so educated that they may attain any talent in perfection which they may desire, or which their circumstances may render necessary. If, for instance, a woman were to marry a man who was fond of music, or who admired painting, she should be able to cultivate these talents for his amusement and her own. If he be a man of sense and feeling, he will be more pleased with the motive than with the thing that is actually done. But if it be urged that all women cannot expect to marry men of sense and feeling; and if we are told, that nevertheless they

* Une Virtuose.

must look to "an advantageous establishment," we must conclude, that men of rank and fortune are meant by that comprehensive phrase. Another set of arguments must be used to those who speculate on their daughters' accomplishments in this line. They have, perhaps, seen some instances of what they call success; they have seen some young women of their acquaintance, whose accomplishments have attracted men of fortune superior to their own; consequently, maternal tenderness is awakened, and many mothers are sanguine in their expectations of the effect of their daughters' education. But they forget that everybody now makes the same reflections, that parents are, and have been for some years speculating in the same line; consequently, the market is likely to be overstocked, and, of course, the value of the commodities must fall. Every young lady (and every young woman is now a young lady) has some pretensions to accomplishments. She draws a little, or she plays a little, or she speaks French a little. Even the blue-board boardingschools, ridiculed by Miss Allscript in the Heiress, profess to perfect young ladies in some or all of these necessary parts of education. Stop at any good inn on the London roads, and you will probably find that the landlady's daughter can show you some of her own framed drawings, can play a tune upon her spinet, or support a dialogue in French of a reasonable length, in the customary questions and answers. Now it is the practice in high life to undervalue, and avoid as much as possible, every thing which descends to the inferior classes of society. The dress of to-day is unfashionable to-morrow, because everybody wears it. The dress is not preferred because it is pretty or useful, but because it is the distinction of wellbred people. In the same manner, accomplishments have lost much of that value which they acquired from opinion, since they have become common. They are now so common, that they cannot be considered as the distinguishing characteristics of even a gentlewoman's education. The higher classes in life, and those individuals who aim at distinction, now establish another species of monopoly, and secure to themselves a certain set of expensive masters in music, drawing, dancing, &c.; and they endeavour to believe, and to make others believe, that no one can be well educated without having served an apprenticeship of so

many lessons under some of these privileged masters. But it is in vain that they intrench themselves, they are pursued by the intrusive vulgar. In a wealthy, mercantile nation, there is nothing which can be bought for money, which will long continue to be an envied distinction. The hope of attaining that degree of eminence in the fine arts which really deserves celebrity, becomes every day more difficult to private practitioners, because the number of competitors daily increases; and it is the interest of masters to forward their pupils by every possible means. Both genius and perseverance must now be united to obtain the prize of distinction; and how seldom are they found, or kept together, in the common course of education!

Considering all these circumstances, is there not some reason to apprehend, that in a few years the taste for several fashionable appendages of female education may change, and that those will consequently be treated with neglect who have no other claim to public regard than their proficiency in what may, perhaps, then be thought vulgar or obsolete accomplishments? Our great-grandmothers distinguished themselves by truly substantial tent-work chairs and carpets, by needle-work pictures of Solomon and the queen of Sheba. These were admirable in their day, but their day is over; and these useful, ingenious, and laborious specimens of female talents, are consigned to the garret, or they are produced but as curiosities, to excite wonder at the strange patience and miserable destiny of former generations; the taste for tapestry and embroidery is thus past; the long labours of the loom have ceased. Cloth-work, crape-work, chenille-work, riband-work, wafer-work, with a long train of etceteras, have all passed away in our own memory; yet these conferred much evanescent fame, and a proportional quantity of vain emulation. A taste for drawing or music cannot be classed with any of these trifling performances; but there are many faded drawings of the present generations, which cannot stand in competition with the glowing and faithful colours of the silk and worsted of former times; and many of the hours spent at a *stammering* harpsichord, might surely, with full as much domestic advantage, have been devoted to the embellishment of chairs and carpets. We hope that no one will so perversely misunderstand us, as to infer from these remarks that we desire to see the

revival of old tapestry-work; or that we condemn the elegant accomplishments of music and drawing. We condemn only the abuse of these accomplishments; we only wish that they should be considered as domestic occupations, not as matters of competition or of exhibition, nor yet as the means of attracting temporary admiration. We are not afraid that any, who are really conscious of having acquired accomplishments with these prudent and honourable views, should misapprehend what has been said. Mediocrity may, perhaps, attempt to misrepresent our remarks, and may endeavour to make it appear that we have attacked, and that we would discourage, every effort of female taste and ingenuity in the fine arts; we cannot, therefore, be too explicit in disclaiming such illiberal views.

We have not yet spoken of dancing, though it is one of the most admired of female accomplishments. This evidently is an amusement, not an occupation; it is an greeable exercise, useful to the health, and advantageous, as it confers a certain degree of habitual ease and grace. Mr. Locke seems to think, that it gives young people confidence in themselves when they come into company, and that it is, therefore, expedient to teach children early to dance: but there are so many other methods of inspiring young people with this confidence in themselves, that it appears unnecessary to lay much stress upon this argument. If children live in good company, and see constantly people with agreeable manners, they will acquire manners which the dancing-master does not always teach; and they will easily vary their forms of politeness with the fashion of the day. Nobody comes into a room regularly as the dancing-master taught him to make his entrance; we should think a strict adherence to his lessons ridiculous and awkward in well-bred company; therefore much must be left to the discretion and taste of the pupil, after the dancing-master has made his last bow. Ease of manners is not always attained by those who have been strictly disciplined by a Vestris, because the lessons are not always practised in precisely the same circumstances in which they were learned: this confuses and confounds the pupils, and they rather lose than gain confidence in themselves, from perceiving that they cannot immediately apply what they have been taught. But we need not expatiate upon this subject, because there are few parents of

good sense, in any rank of life, who will not perceive that their daughters' manners cannot be formed or polished by a dancing-master. We are not to consider dancing in a grave and moral light; it is an amusement much more agreeable to young people, and much better suited to them in every respect, than cards, or silent assemblies of formal visiters. It promotes cheerfulness, and prevents, in some measure, the habits of gossiping conversation and the love of scandal. So far we most willingly agree with its most vivacious advocates in its common eulogium. But this is not, we fear, saying enough. We see, or fancy that we see, the sober matron lay down her carefully assorted cards upon the card-table, and with dictatorial solemnity she pronounces, "That dancing is something more than an amusement; that girls must learn to dance, because they must appear well in public; because the young ladies who dance the best are usually most *taken notice* of in public; most admired by the other sex: most likely, in short, not only to have their choice of the best partner in a ball-room, but sometimes of the best partner for life."

With submission to maternal authority, these arguments do not seem to be justified of late years. Girls who dance remarkably well, are, it is true, admired in a ball-room, and followed, perhaps, by those idle, thoughtless young men, who frequent public places merely for the want of something else to do. This race of beings are not particularly calculated to make good husbands in any sense of the word; nor are they usually disposed to think of marriage in any other light than as the last desperate expedient to repair their injured fortunes. They set their wits against the sex in general, and consider themselves as in danger of being jockeyed into the matrimonial state. Some few, perhaps, who have not brought their imagination sufficiently under the command of the calculating faculty, are *caught* by beauty and accomplishments, and many against the common rules of interest. These men are considered with pity or with ridicule by their companions, as dupes, who have suffered themselves to be taken in: others are warned by their fate; and the future probability of similar *errors*, of course, must be diminished. The fashionable apathy, whether real or affected, with which young men lounge in public places, with scarcely the appear-

ance of attention to the fair exhibiters before them, sufficiently marks the temper of the times; and if the female sex have lost any thing of the respect and esteem which ought to be paid to them in society, they can scarcely expect to regain their proper influence by concessions to the false and vitiated taste of those who combine to treat them with neglect bordering upon insolence. If the system of female education, if the system of female manners, conspire to show in the fair sex a degrading anxiety to attract worthless admiration, wealthy or titled homage, is it surprising that every young man who has any pretensions to birth, fortune, or fashion, should consider himself as the arbiter of their fate, and the despotic judge of their merit? Women who understand their real interests, perceive the causes of the contempt with which the sex is treated by fashionable coxcombs, and they feel some indignation at the meanness with which this contempt, tacitly or openly expressed, is endured. Women who feel none of this indignation, and who, either from their education or their circumstances, are only solicitous to obtain present amusement, or what they think the permanent advantages of a fortunate alliance, will yet find themselves disappointed by persisting in their thoughtless career; they will not gain even the objects to which they aspire. How many accomplished belles run the usual round of dissipation in all public places of exhibition, tire the public eye, and, after a season or two, fade and are forgotten! How many accomplished belles are there, who, having gained the object of their own or of their mothers' ambition, find themselves doomed to misery for life! Those unequal marriages which are sometimes called *excellent matches*, seldom produce much happiness. And where happiness is not, what *is* all the rest?

If all or any of these reflections should strike the heart and convince the understanding of an anxious but reasonable mother, she will, probably, immediately determine upon her own conduct in the education of her daughters: she will resolve to avoid the common errors of the frivolous or the interested; she will not be influenced by the importunity of every idle acquaintance, who may talk to her of the necessity of her daughter's being taken notice of in public, of the chances of an *advantageous* establishment, of the good fortune of Miss

Y——, or Lady Angelina X——, in meeting with a coxcomb or a spendthrift for a husband; nor will she be moved with maternal emulation when she is farther told, that these young ladies owed their *success* entirely to the superiority of their accomplishments: she will consider, for one moment, what is meant by the word success; she will, perhaps, not be of opinion that "'tis best repenting in a coach and six;" she will, perhaps, reflect, that even the "soft sounds" of titled grandeur lose their power to please, and "salute the ear" almost unobserved. The happiness, the permanent happiness of her child, will be the first, the last object of the good and the enlightened mother: to this all her views and all her efforts will tend; and to this she will make every fashionable, every elegant accomplishment subservient.

As to the means of acquiring these accomplishments, it would be absurd and presumptuous to present here any vague precepts or tedious details, upon the mode of learning drawing, dancing, and music. These can be best learned from the masters who profess to teach them, as far as the technical part is necessary. But success will not ultimately depend upon any technical instructions that a master can give: he may direct the efforts of industry so as to save much useless labour; he may prevent his pupils from acquiring bad practical habits; he may assist, but he cannot inspire the spirit of perseverance. A master who is not expected, or indeed allowed, to interfere in the general education of his pupils, can only diligently attend to them while he is giving his lessons; he has not any power, except that pernicious motive, competition, to excite them to excel; his instructions cannot be peculiarly adapted to their tempers or their understandings, because with these he is unacquainted. Now a sensible mother has it in her power to supply all these deficiencies; even if she does not herself excel in any of the accomplishments which her daughters are learning, her knowledge of their minds, her taste, her judgment, her affection, her superintending intelligence, will be of inestimable value to her children. If she has skill in any accomplishment, she will, for the first years of her daughters' lives, be undoubtedly the best person to instruct them. By skill, we do not mean superior talents, or proficiency in music or drawing; without these, she may be able to teach all that is necessary in the early part of education. One

of the best motives which a woman can have to cultivate her talents after she marries, is the hope and belief that she may be essentially serviceable in the instruction of her family. And that she may be essentially serviceable, let no false humility lead her to doubt. She need not be anxious for the rapid progress of her little pupils; she need not be terrified if she see their equals in age surpass them under what she thinks more able tuition; she may securely satisfy herself, that if she but inspires her children with a desire to excel, with the habits of attention and industry, they will certainly succeed, sooner or later, in whatever it is desirable that they should learn. The exact age at which the music, dancing, and drawing masters should begin their instructions, need not be fixed. If a mother should not be so situated as to be able to procure the best masters for her daughters while they are yet children, she need not be in despair; a rapid progress is made in a short time by well-educated young people; those who have not acquired any bad habits are easily taught: it should, therefore, seem prudent, if the best masters cannot be procured at any given period of education, rather to wait patiently, than to hazard their first impressions, and the first habits which might be given by any inferior technical instruction. It is said that the celebrated musician Timotheus, whose excellence in his art Alexander the conqueror of the world was forced to acknowledge, when pupils flocked to him from all parts of the world, had the prudence to demand double *entrance money* from every scholar who had had any other music-master.

Besides the advantage of being entirely free from other bad habits, children who are not taught by inferior masters will not contract habits of listless application. Under the eye of an indolent person, children seldom give their entire attention to what they are about. They become mere machines; and without using their own understanding in the least, have recourse to the convenient master upon every occasion. The utmost that children in such circumstances can learn, is, all the technical part of the art which the master can teach. When the master is at last dismissed, and her education completed, the pupil is left both fatigued and helpless. "Few have been taught to any purpose, who have not been their own teachers," says Sir Joshua Reynolds.

This reflection upon the art of teaching, may, perhaps, be too general; but those persons who look back upon their education, will, in many respects, allow it to be just. They will perceive that they have been too much taught, that they have learned every thing which they know as an art, and nothing as a science. Few people have sufficient courage to recommence their own education, and for this reason few people get beyond a certain point of mediocrity. It is easy to them to practise the lessons which they have learned, if they practise them in intellectual darkness; but if you let in upon them one ray of philosophic light, you dazzle and confound them, so that they cannot even perform their customary feats. A young man,* who had been blind from his birth, had learned to draw a cross, a circle, and a square, with great accuracy; when he was twenty, his eyes were couched, and when he could see perfectly well, he was desired to draw his circle and square. His new sense of seeing, so far from assisting him in this operation, was extremely troublesome to him; though he took more pains than usual, he performed very ill: confounded by the new difficulty, he concluded that sight was useless in all operations to be performed by the hand, and he thought his eyes would be of no use to him in future. How many people find their reason as useless and troublesome to them as this young man found his eyesight.

While we are learning any mechanical operation, or while we are acquiring any technical art, the mind is commonly passive. In the first attempts, perhaps, we reason or invent ways of abridging our own labour, and the awkwardness of the unpractised hand is assisted by ingenuity and reflection; but as we improve in manual dexterity, attention and ingenuity are no longer exerted; we go on habitually without thought.—Thought would probably interrupt the operation, and break the chain of associated actions.† An artificer stops his hand the moment you ask him to explain what he is about: he can work and talk of indifferent objects; but if he reflects upon the manner in which he performs certain sleight of hand parts of his business, it is ten to

* See Storia di quattro fratelli nati ciechi e guariti coll' estrazione delle caterratte.—Di Francesco Buzzi.

† See Zoonomia.

one but he cannot go on with them. A man who writes a free running hand, goes on without thinking of the manner in which he writes; fix his attention upon the manner in which he holds his pen, or forms his letters, and he probably will not write quite so fast, or so well as usual. When a girl first attempts to dress herself at a glass, the glass perplexes, instead of assisting her, because she thinks and reasons about every motion; but when by habit she has learned to move her hands in obedience to the *flugel* image,* which performs its exercise in the mirror, no farther thought is employed. Make the child observe that she moves her left hand forward when the image in the glass moves in a contrary manner, turn the child's attention to any of her own motions, and she will make mistakes as she did before her habits were formed.

Many occupations which are generally supposed to depend upon the understanding, and which do probably depend in the first instance upon the *understanding*, become by practice purely mechanical. This is the case in many of the imitative arts. A person unused to drawing, exerts a great deal of attention in copying any new object; but custom soon supplies the place of thought. By custom,† as a great artist assures us, he will become able to draw the human figure tolerably correctly, with as little effort of the mind, as to trace with a pen the letters of the alphabet.

We must farther observe, that the habit of pursuing any occupation which requires no mental exertion, induces an indolence or incapacity of intellect. Mere artists are commonly as stupid as mere artificers, and these are little more than machines.

The length of time which is required to obtain practical skill and dexterity in certain accomplishments, is one reason why there are so few people who obtain any thing more than mechanical excellence. They become the slaves of custom, and they become proud of their slavery. At first they might have considered custom as a tyrant; but when they have obeyed her for a certain time, they do her voluntary homage ever after, as to a sovereign by divine right. To prevent this spe-

* This word is sometimes by mistake spelled *fugal*, or *fugle*, as in *fugle-man*.

† Sir Joshua Reynolds.

cies of intellectual degradation, we must in education be careful to rank mere mechanical talents below the exercise of the mental powers. Thus the ambition of young people will be directed to high objects, and all inferior qualifications may be attained without contracting the understanding. Praise children for patience, for perseverance, for industry; encourage them to reason and to invent upon all subjects, and you may direct their attention afterward as you think proper. But if you applaud children merely for drawing a flower neatly, or copying a landscape, without exciting their ambition to any thing higher, you will never create superior talents, or a superior character. The proficiency that is made in any particular accomplishment, at any given age, should not be considered so much, even by those who highly value accomplishments, as the power, the energy, that is excited in the pupil's mind, from which future progress is ensured. The writing and drawing automaton performs its advertised wonders to the satisfaction of the spectators; but the machine is not "*instinct with spirit*;" you cannot expect from its pencil the sketch of a Raphael, or from its pen the thoughts of a Shakspeare. It is easy to guide the hand, but who can transfuse a soul into the image?

It is not an uncommon thing to hear young people who have been long under the tuition of masters, complain of their own want of genius. They are sensible that they have not made great progress in any of the accomplishments which they have endeavoured to learn; they see others, who have not, perhaps, had what they call such *opportunities* and *advantages* in their education, suddenly surpass them; this they attribute to natural genius, and they say to themselves in despair, "Certainly I have no taste for drawing; I have no genius for music; I have learned so many years, I have had so many lessons from the best masters, and yet here is such and such a one, who has had no master, who has taught herself, and, perhaps, did not begin till late in life, has got before me, because she has a natural genius for these things. She must have a natural taste for them, because she can sit whole hours at these things for her own pleasure. Now I never would take a pencil in my hand from my own choice; and I am glad, at all events, that the time for lessons and masters is over. My education is finished, for I am of age."

The disgust and despair which are thus induced by an injudicious education, absolutely defeat its own trivial purposes. So that, whatever may be the views of parents, whether they consider ornamental accomplishments as essential to their daughter's *success* in the world, or whether they value them rather as secondary objects, subordinate to her happiness; whether they wish their daughter actually to excel in any particular accomplishment, or to have the power of excelling in any to which circumstances may direct her, it is in all cases advisable to cultivate the general power of the pupil's understanding, instead of confining her to technical practices and precepts, under the eye of any master who does not possess that which is the *soul* of every art.

We do not mean any illiberal attack upon masters; but in writing upon education, it is necessary to examine the utility of different modes of instruction, without fear of offending *any class* of men. We acknowledge that it is seldom found, that those who can communicate their knowledge the best *possess the most*, especially if this knowledge be that of an artist or a linguist. Before any person is properly qualified *to teach*, he must have the power of recollecting exactly how *he learned;* he must go back, step by step, to the point at which he began, and he must be able to conduct his pupil through the same path, without impatience or precipitation. He must not only have acquired a knowledge of the process by which his own ideas and habits were formed, but he must have extensive experience of the varieties of the human mind. He must not suppose that the operations of intellect are carried on in the same manner in all minds; he must not imagine that there is but one method of teaching, which will suit all persons alike. The analogies which strike his own mind, the arrangement of ideas which to him appears the most perspicuous, to his pupil may appear remote and confused. He must not attribute this to his pupil's inattention, stupidity, or obstinacy; but he must attribute it to the true causes; the different association of ideas in different minds, the different habits of thinking which arise from their various tempers and previous education. He must be acquainted with the habits of all tempers: the slow, the quick, the inventive, the investigating; and he must adapt his instructions accordingly. There is something more requisite: a master must not only know what he

professes to teach of his own peculiar art or science, but he ought to know all its bearings and dependances. He must be acquainted not only with the local topography of his own district, but he must have the whole map of human knowledge before him; and while he dwells most upon his own province, he must yet be free from local prejudices, and must consider himself as a citizen of the world. Children who study geography in small separate maps, understand, perhaps, the view of each country tolerably well; but we see them quite puzzled when they are to connect these maps in their idea of the world. They do not know the relative size or situation of England or France; they cannot find London or Paris when they look for the first time upon the globe, and every country seems to be turned upside down in their imagination. Young people who learn particular arts and sciences from masters who have confined their view to the boundaries of each, without having given an enlarged idea of the whole, are much in the same situation with these unfortunate geographers.

The persisting to teach things separately which ought to be taught as a whole, must prevent the progress of mental cultivation.* The division and subdivision of different parts of education, which are monopolized as trades by the masters who profess to teach them, must tend to increase and perpetuate error. These intellectual *castes* are pernicious.

It is said that the Persians had masters to teach their children each separate virtue: one master to teach justice, another fortitude, another temperance, and so on. How these masters could preserve the boundaries of their several moral territories, it is not easy to imagine, especially if they all insisted upon independent sovereignty. There must have been some danger, surely, of their disputing with each other concerning the importance of their respective professions, like the poor bourgeois gentilhomme's dancing-master, music-master, master of morality, and master of philosophy, who all fell to blows to settle their pretensions, forgetful of the presence of their pupil. Masters who are only expected to teach one thing, may be sincerely anxious for the improvement of their pupils in that particular, without being in the least interested for their general char-

* Condillac.

acter or happiness. Thus the drawing-master has done his part, and is satisfied if he teaches his pupil to draw well: it is no concern of his what her temper may be, any more than what sort of hand she writes, or how she dances. The dancing-master, in his turn, is wholly indifferent about the young lady's progress in drawing; all he undertakes is to teach her to dance.

We mention these circumstances to show parents that masters, even when they do the utmost that they engage to do, cannot educate their children; they can only partially instruct them in particular arts. Parents must themselves preside over the education of their children, or must entirely give them into the care of some person of an enlarged and philosophic mind, who can supply all the deficiencies of common masters, and who can take advantage of all the positive good that can be obtained from existing institutions. Such a preceptor or governess must possess extensive knowledge, and that superiority of mind which sees the just proportion and value of every acquisition, which is not to be overawed by authority, or dazzled by fashion. Under the eye of such persons, masters will keep precisely their proper places; they will teach all they can teach, without instilling absurd prejudices, or inspiring a spirit of vain rivalship; nor will masters be suffered to continue their lessons when they have nothing more to teach.

Parents who do not think that they have leisure, or feel that they have capacity, to take the entire direction of their children's education upon themselves, will trust this important office to a governess. The inquiry concerning the value of female accomplishments, has been purposely entered into before we could speak of the choice of a governess, because the estimation in which these are held will very much determine parents in their choice.

If what has been said of the probability of a decline in the public taste for what are usually called accomplishments; of their little utility to the happiness of families and individuals; of the waste of time, and waste of the higher powers of the mind in acquiring them; if what has been observed on any of these points is allowed to be just, we shall have little difficulty in pursuing the same principles farther. In the choice of a governess we should not then consider her fashionable accomplishments as her best recommendations;

these will be only secondary objects. We shall examine, with more anxiety, whether she possess a sound, discriminating, and enlarged understanding: whether her mind be free from prejudice; whether she has steadiness of temper to pursue her own plans; and, above all, whether she has that species of integrity which will justify a parent in trusting a child to her care. We shall attend to her conversation and observe her manners, with scrupulous minuteness. Children are *imitative animals*, and they are peculiarly disposed to imitate the language, manners, and gestures, of those with whom they live, and to whom they look up with admiration. In female education, too much care cannot be taken to form all those habits in morals and in manners which are distinguishing characteristics of amiable women. These habits must be acquired early, or they will never appear easy or graceful; they will necessarily be formed by those who see none but good models.

We have already pointed out the absolute necessity of union among all those who are concerned in a child's education. A governess must either rule or obey, decidedly. If she do not agree with the child's parents in opinion, she must either know how to convince them by argument, or she must with strict integrity conform her practice to their theories. There are few parents who will choose to give up the entire care of their children to any governess; therefore, there will probably be some points in which a difference of opinion will arise. A sensible woman will never submit to be treated, as governesses are in some families, like the servant who was asked by his master what business he had to think: nor will a woman of sense or temper insist upon her opinions without producing her reasons. She will thus ensure the respect and the confidence of enlightened parents.

It is surely the interest of parents to treat the person who educates their children with that perfect equality and kindness which will conciliate her affection, and which will at the same time preserve her influence and authority over her pupils. And it is with pleasure we observe, that the style of behaviour to governesses, in wellbred families, is much changed within these few years. A governess is no longer treated as an upper servant, or as an intermediate being between a servant and a gentlewoman: she is now treated as the friend

and companion of the family; and she must, consequently, have warm and permanent interest in its prosperity: she becomes attached to her pupils from gratitude to their parents, from sympathy, from generosity, as well as from the strict sense of duty.

In fashionable life there is, however, some danger that parents should go into extremes in their behaviour towards their governesses. Those who disdain the idea of assuming superiority of rank and fortune, and who desire to treat the person who educates their children as their equal, act with perfect propriety; but if they make her their companion in all their amusements, they go a step too far, and they defeat their own purposes. If a governess attends the card-table and the assembly-room; if she is to visit and be visited, what is to become of her pupils in her absence? They must be left to the care of servants. There are some ladies who will not accept of any invitation in which the governess of their children is not included. This may be done from a good motive, but, surely, it is unreasonable; for the very use of a governess is to supply the mother's place in her absence. Cannot this be managed better? Cannot the mother and governess both amuse themselves at different times? There would then be perfect equality; the governess would be in the same society, and would be treated with the same respect, without neglecting her duty. The reward which is given to women of abilities and of unblemished reputation, who devote themselves to the superintendence of the education of young ladies in the higher ranks of life, ought to be considerably greater than it is at present: it ought to be such as to excite women to cultivate their talents and their understandings, with a view to this profession. A profession we call it, for it should be considered as such; as an honourable profession, which a gentlewoman might follow without losing any degree of the estimation in which she is held by what is called *the world*. There is no employment, at present, by which a gentlewoman can maintain herself, without losing something of that respect, something of that rank in society, which neither female fortitude nor male philosophy willingly foregoes. The liberal professions are open to men of small fortunes; by presenting one similar resource to women, we should give a strong motive for their moral and intellectual improvement.

Nor does it seem probable that they should make a disgraceful or imprudent use of their increasing influence and liberty in this case, because their previous education must previously prepare them properly. The misfortune of women has usually been, to have power trusted to them before they were educated to use it prudently. To say that preceptresses in the higher ranks of life should be liberally rewarded, is but a vague expression; something specific should be mentioned, wherever general utility is the object. Let us observe, that many of the first dignities of the church are bestowed, and properly bestowed, upon men who have educated the highest ranks of the English nobility. Those who look with an evil eye upon these promotions, do not fairly estimate the *national* importance of education for the rich and powerful. No provision can be made for women who direct the education of the daughters of nobility, any way equivalent to the provision made for preceptors by those who have influence in the state. A pecuniary compensation is in the power of opulent families. Three hundred a year, for twelve or fourteen years, the space of time which a preceptress must probably employ in the education of a young lady, would be a suitable compensation for her care. With this provision she would be enabled, after her pupil's education was completed, either to settle in her own family, or she would, in the decline of life, be happily independent,—secure from the temptation of marrying for money. If a few munificent and enlightened individuals set the example of liberally rewarding merit in this situation, many young women will probably appear with talents and good qualities suited to the views of the most sanguine parents. With good sense and literary tastes, a young woman might instruct herself during the first years of her pupil's childhood, and might gradually prepare herself with all the necessary knowledge: according to the principles that have been suggested, there would be no necessity for her being a *mistress of arts*, a performer in music, a painter, a linguist, or a poetess. A general knowledge of literature is indispensable; and yet farther, she must have sufficient taste and judgment to direct the literary talents of her pupils.

With respect to the literary education of the female sex, the arguments on both sides of the question have

already been stated, with all the impartiality in our power, in another place.* Without obtruding a detail of the same arguments again upon the public, it will be sufficient to profess the distinct opinion, which a longer consideration of the subject has yet more fully confirmed. That it will tend to the happiness of society in general, that women should have their understandings cultivated and enlarged as much as possible; that the happiness of domestic life, the virtues and the powers of pleasing in the female sex, the yet more desirable power of attaching those worthy of their love and esteem, will be increased by the judicious cultivation of the female understanding, more than by all that modern gallantry or ancient chivalry could devise in favour of the sex. Much prudence and ability are requisite to conduct properly a young woman's literary education. Her imagination must not be raised above the taste for necessary occupations, or the numerous small, but not trifling, pleasures of domestic life: her mind must be enlarged, yet the delicacy of her manners must be preserved: her knowledge must be various, and her powers of reasoning unawed by authority; yet she must *habitually* feel that nice sense of propriety which is at once the guard and the charm of every feminine virtue. By early caution, unremitting, scrupulous caution in the choice of the books which are put into the hands of girls, a mother or a preceptress may fully occupy and entertain her pupils, and excite in their minds a *taste* for propriety, as well as a taste for literature. It cannot be necessary to add more than this general idea, that a mother ought to be answerable to her daughter's husband for the books her daughter had read, as well as for the company she had kept.

Those observations which apply equally to the cultivation of the understanding both of men and of women, we do not here mean to point out: we would speak only of what may be peculiar to female education. From the study of the learned languages, women, by custom, fortunately for them, are exempted: of ancient literature they may, in translations which are acknowledged to be excellent, obtain a sufficient knowledge, without paying too much time and labour for this classic pleasure. Confused notions from fashionable publications,

* See Letters for Literary Ladies.

from periodical papers, and comedies, have made their way into common conversation, and thence have assumed an appearance of authority, and have been extremely disadvantageous to female education. Sentiment and ridicule have conspired to represent reason, knowledge, and science, as unsuitable or dangerous to women; yet at the same time wit, and superficial acquirements in literature, have been the object of admiration in society; so that this dangerous inference has been drawn, almost without our perceiving its fallacy, that superficial knowledge is more desirable in women than accurate knowledge. This principle must lead to innumerable errors; it must produce continual contradictions in the course of education: instead of making women more reasonable and less presuming, it will render them at once arrogant and ignorant; full of pretensions, incapable of application, and unfit to hear themselves convinced. Whatever young women learn, let them be taught accurately; let them know ever so little apparently, they will know much if they have learned that little *well*. A girl who runs through a course of natural history, hears something about chymistry, has been taught something of botany, and who knows but just enough of these to make her fancy that she is well informed, is in a miserable situation, in danger of becoming ridiculous, and insupportably tiresome to men of sense and science. But let a woman know any one thing completely, and she will have sufficient understanding to learn more, and to apply what she has been taught so as to interest men of generosity and genius in her favour. The knowledge of the general principles of any science, is very different from superficial knowledge of the science; perhaps, from not attending to this distinction, or from not understanding it, many have failed in female education. Some attempt will be made to mark this distinction practically, when we come to speak of the cultivation of the memory, invention, and judgment. No intelligent preceptress will, it is hoped, find any difficulty in the application of the observations she may meet with in the chapters on imagination, sympathy and sensibility, vanity and temper. The masculine pronoun *he*, has been used for grammatical convenience, not at all because we agree with the prejudiced and uncourteous grammarian, who asserts, "that the masculine is the more worthy gender."

CHAPTER XXI.

MEMORY AND INVENTION.

Before we bestow many years of time and pains upon any object, it may be prudent to afford a few minutes previously to ascertain its precise value. Many persons have a vague idea of the great value of memory, and, without analyzing their opinion, they resolve to cultivate the memories of their children as much, and as soon, as possible. So far from having determined the value of this talent, we shall find that it will be difficult to give a popular definition of a good memory. Some people call that a good memory which retains the greatest number of ideas for the longest time. Others prefer a recollective to a retentive memory, and value not so much the number, as the selection, of facts; not so much the mass or even the antiquity of accumulated treasure, as the power of producing current specie for immediate use. Memory is sometimes spoken of as if it were a faculty admirable in itself, without any union with the other powers of the mind. Among those who allow that memory has no independent claim to regard, there are yet many who believe, that a superior degree of memory is essential to the successful exercise of the higher faculties, such as judgment and invention. The degree in which it is useful to those powers, has not, however, been determined. Those who are governed in their opinions by precedent and authority, can produce many learned names to prove that memory was held in the highest estimation among the great men of antiquity; it was cultivated with much anxiety in their public institutions, and in their private education. But there were many circumstances which formerly contributed to make a great memory essential to a great man. In civil and military employments, among the ancients, it was in a high degree requisite. Generals were expected to know by heart the names of the soldiers in their armies; demagogues who hoped to please the people, were expected to know the names of all

their fellow-citizens.* Orators who did not speak extempore, were obliged to get their long orations by rote. Those who studied science or philosophy, were obliged to cultivate their memory with incessant care, because, if they frequented the schools for instruction, they treasured up the sayings of the masters of different sects, and learned their doctrines only by oral instruction. Manuscripts were frequently got by heart by those who were eager to secure the knowledge they contained, and who had not opportunities of recurring to the originals. It is not surprising, therefore, that memory, to which so much was trusted, should have been held in such high esteem.

At the revival of literature in Europe, before the discovery of the art of printing, it was scarcely possible to make any progress in the literature of the age, without possessing a retentive memory. A man who had read a few manuscripts and could repeat them, was a wonder and a treasure: he could travel from place to place, and live by his learning; he was a circulating library to a nation, and the more books he could carry in his head, the better: he was certain of an admiring audience, if he could repeat what Aristotle or Saint Jerome had written; and he had far more encouragement to engrave the words of others on his memory, than to invent or judge for himself.

In the twelfth century, above six hundred scholars assembled in the forests of Champagne, to hear the lectures of the learned Abeillard; they made themselves huts of the boughs of trees, and in this new academic grove were satisfied to go almost without the necessaries of life. In the specimens of Abeillard's composition which are handed down to us, we may discover proofs of his having been vain of a surprising memory; it seems to have been the superior faculty of his mind: his six hundred pupils could carry away with them only so much of his learning as they could get by heart during his course of lectures; and he who had the best memory, must have been best paid for his journey.†

The art of printing, by multiplying copies so as to put them within the easy reference of all classes of people, has reduced the value of this species of retentive mem-

* See Plutarch. Quintilian.

† Berrington's History of the Lives of Abeillard and Heloisa, p. 173.

ory. It is better to refer to the book itself, than to the man who has read the book. Knowledge is now ready classed for use, and it is safely stored up in the great commonplace books of public libraries. A man of literature need not encumber his memory with whole passages from the authors he wants to quote; he need only mark down the page, and the words are safe.

Mere erudition does not in these days ensure permanent fame. The names of the Abbé de Longuerue and of the Florentine librarian Magliabechi, excite no vivid emotions in the minds of those who have heard of them before; and there are many, perhaps not illiterate persons, who would not be ashamed to own that they had never heard of them at all. Yet these men were both of them, but a few years ago, remarkable for extraordinary memory and erudition. When M. de Longuerue was a child, he was such a prodigy of memory and knowledge, that Louis XIV., passing through the abbé's province, stopped to see and hear him. When he grew up, Paris consulted him as the oracle of learning. His erudition, says d'Alembert,* was not only prodigious, but actually terrible. Greek and Hebrew were more familiar to him than his native tongue. His memory was so well furnished with historic facts, with chronological and topographical knowledge, that upon hearing a person assert, in conversation, that it would be a difficult task to write a good historical description of France,† he asserted that he could do it from memory, without consulting any books. All he asked was to have some maps of France laid before him: these recalled to his mind the history of each province, of all the fiefs of the crown of each city, and even of each distinguished nobleman's seat in the kingdom. He wrote his folio history in a year. It was admired as a great curiosity in manuscript; but when it came to be printed, sundry gross errors appeared: he was obliged to take out several leaves in correcting the press. The edition was very expensive, and the work at last would have been rather more acceptable to the public if the author had not written it from memory. Love of the wonderful must yield to esteem for the useful.

The effect which all this erudition had upon the Abbé

* Eloge de M. L'Abbé d'Alary.
† Marquis d'Argenson's Essays, p. 385.

de Longuerue's taste, judgment, and imagination, is worth our attention. Some of his opinions speak sufficiently for our purpose. He was of opinion that the English have never done any good,* since they renounced the study of Greek and Arabic for Geometry and Physics. He was of opinion that two antiquarian books upon Homer, viz., *Antiquitates Homericæ and Homeri Gnomoligia*, are preferable to Homer himself. He would rather have them, he declared, because with these he had all that was useful in the poet, without being obliged to go through long stories, which put him to sleep. "As for that madman Ariosto," said he, "I sometimes divert myself with him." One odd volume of Racine was the only French book to be found in his library. His erudition died with him, and the world has not profited much by his surprising memory.

The librarian Magliabechi was no less famous than M. de Longuerue for his memory, and he was yet more strongly affected by the mania for books. His appetite for them was so voracious, that he acquired the name of the glutton of literature.† Before he died, he had *swallowed* six large rooms full of books. Whether he had time to digest any of them we do not know, but we are sure that he wished it; for the only line of his own composition which he has left for the instruction of posterity, is round a medal. The medal represents him sitting with a book in his hand, and with a great number of books scattered on the floor round him. The candid inscription signifies, that to become learned it is not sufficient to read much, if we read without reflection. The names of Franklin and of Shakspeare are known wherever literature is cultivated, to all who have any pretensions to science or to genius; yet they were not men of extraordinary erudition, nor from their works should we judge that memory was their predominant faculty. It may be said that a superior degree of memory was essential to the exercise of their judgment and invention; that without having treasured up in his memory a variety of minute observations upon human nature, Shakspeare could never have painted the passions with so bold and just a hand; that if Franklin had not accurately remembered his own philosophical observations and

* D'Alembert's Eloge de M. d'Alary.

† Curiosities of Literature, vol. ii. page 145.

those of others, he never would have made those discoveries which have immortalized his name. Admitting the justice of these assertions, we see that memory to great men is but a subordinate servant, a treasurer who receives, and is expected to keep faithfully whatever is committed to his care; and not only to preserve faithfully all deposites, but to produce them at the moment they are wanted. There are substances which are said to imbibe and retain the rays of light, and to emit them only in certain situations. As long as they retain the rays, no eye regards them.

It has often been observed that a recollective and a retentive memory are seldom found united. If this were true, and we had our choice of either, which should we prefer? For the purposes of ostentation, perhaps the one; for utility, the other. A person who could repeat from beginning to end the whole Economy of Human Life, which he had learned in his childhood, might, if we had time to sit still and listen to him, obtain our admiration for his extraordinarily retentive memory; but the person who, in daily occurrences or interesting affairs, recollects at the proper time what is useful to us, obtains from our gratitude something more than vain admiration. To speak accurately, we must remark that retentive and recollective memories are but relative terms: the recollective memory must be retentive of all that it recollects; the retentive memory cannot show itself till the moment it becomes recollective. But we value either precisely in proportion as it is useful and agreeable.

Just at the time when philosophers were intent upon trying experiments in electricity, Dr. Heberden recollected to have seen, many years before, a small electrical stone, called tourmalin,* in the possession of Dr. Sharpe at Cambridge. It was the only one known in England at that time. Dr. Heberden procured it; and several curious experiments were made and verified with it. In this instance, it is obvious that we admire the retentive, local memory of Dr. Heberden, merely because it became recollective and useful. Had the tourmalin never been wanted, it would have been a matter of indifference whether the direction for it at Dr. Sharpe's at Cambridge had been remembered or forgotten. There

* Priestley on Electricity, page 317.

was a man* who undertook, in going from Temple Bar to the farthest part of Cheapside and back again, to enumerate at his return every sign on each side of the way in its order, and to repeat them, if it should be required, either backward or forward. This he exactly accomplished. As a playful trial of memory, this affords us a moment's entertainment; but if we were to be serious upon the subject, we should say it was a pity that the man did not use his extraordinary memory for some better purpose. The late King of Prussia, when he intended to advance Trenck in the army, upon his first introduction, gave him a list of the strangest names which could be picked out, to learn by rote. Trenck learned them quickly, and the king was much pleased with this instance of his memory; but Frederick would certainly never have made such a trial of the abilities of Voltaire.

We cannot always foresee what facts may be useful and what may be useless to us,—otherwise the cultivation of the memory might be conducted by unerring rules. In the common business of life, people regulate their memories by the circumstances in which they happen to be placed. A clerk in a counting-house, by practice learns to remember the circumstances, affairs, and names of numerous merchants,—of his master's customers, the places of their abode, and perhaps something of their peculiar humours and manners. A fine lady remembers her visiting list, and perhaps the dresses and partners of every couple at a crowded ball; she finds all these particulars a useful supply for daily conversation, she therefore remembers them with care. An amateur who is ambitious to shine in the society of literary men, collects literary anecdotes, and retails them whenever occasion permits. Men of sense, who cultivate their memories for useful purposes, are not obliged to treasure up heterogeneous facts: by reducing particulars to general principles, and by connecting them with proper associations, they enjoy all the real advantages, while they are exempt from the labour of accumulation.

Mr. Stewart has, with so much ability, pointed out the effects of systematic arrangement of writing, reading, and the use of technical contrivances in the cultivation of the memory, that it would be a presumptuous

* Fuller, author of the Worthies of England. See Curiosities of Literature, vol. I.

and unnecessary attempt to expatiate in other words upon the same subject. It may not be useless, however, to repeat a few of his observations, because, in considering what farther improvement may be made, it is always essential to have fully in our view what is already known.

"Philosophic arrangement assists the memory, by classing under a few principles a number of apparently dissimilar and unconnected particulars. The habit, for instance, of attending to the connexion of cause and effect, presents a multitude of interesting analogies to the minds of men of science, which escape other persons; the vulgar feel no pleasure in contemplating objects that appear remote from common life; and they find it extremely difficult to remember observations and reasonings which are foreign to their customary course of associated ideas. Even literary and ingenious people, when they begin to learn any art or science, usually complain that their memory is not able to retain all the terms and ideas which pour in upon them with perplexing rapidity. In time this difficulty is conquered, not so much by the strength of the memory as by the exercise of judgment: they learn to distinguish and select the material terms, facts, and arguments, from those that are subordinate, and they class them under general heads, to relieve the memory from all superfluous labour.

"In all studies there is some prevalent associating principle, which gradually becomes familiar to our minds, but which we do not immediately discover in our first attempts. In poetry, resemblance; in philosophy, cause and effect; in mathematics, demonstrations continually recur; and, therefore, each is expected by persons who have been used to these respective studies.

"The habit of committing our knowledge to writing assists the memory, because, in writing, we detain certain ideas long enough in our view to perceive all their relations; we use fixed and abbreviated signs for all our thoughts; with the assistance of these, we can prevent confusion in our reasonings. We can, without fatigue, by the help of words, letters, figures, or algebraic signs, go through a variety of mental processes, and solve many difficult problems, which, without such assistance, must have been too extensive for our capacities.

"If our books be well chosen, and if we read with discrimination and attention, reading will improve the mem-

ory, because, as it increases our knowledge, it increases our interest in every new discovery and in every new combination of ideas."

We agree entirely with Mr. Stewart in his observations upon technical helps to the memory; they are hurtful to the understanding, because they break the general habits of philosophic order in the mind. There is no connexion of ideas between the memorial lines, for instance, in Gray's Memoria Technica, the history of the kings or emperors, and the dates that we wish to remember. However, it may be advantageous in education to use such contrivances, to assist our pupils in remembering those technical parts of knowledge which are sometimes valued above their worth in society.

The facts upon which the principles of any science are founded, should never be learned by rote in a technical manner. But the names and the dates of the reigns of a number of kings and emperors, if they must be remembered by children, should be learned in the manner which may give them the least trouble.*

It is commonly asserted that our memory is to be improved by exercise; exercise may be of different kinds, and we must determine what sort is best. Repetition is found to fix words, and sometimes ideas, strongly in the mind; the words of the burden of a song which we have frequently heard, are easily and long remembered. When we want to get any thing by rote, we repeat it over and over again, till the sounds seem to follow each other habitually, and then we say we have them perfectly by rote.† The regular recurrence of sounds, at stated intervals, much assists us. In poetry, the rhymes, the cadence, the alliteration, the peculiar structure of the poet's lines, aid us. All these are mechanical helps to the memory. Repetition seems much more agreeable to some people than to others; but it may be doubted whether a facility and propensity to repetition be favourable to rational memory. While we repeat, we exclude all thought from the mind; we form a habit of saying certain sounds in a certain order; but if this habit be afterward broken by any trifling external circumstances, we lose all our labour. We have no means of recollecting what we have learned in this manner.

* See chapter on Books, and on Geography.
† Dr. Darwin. Zoonomia.

Once gone, it is gone for ever. It depends but upon one principle of association. Those who exert ingenuity as well as memory in learning by heart, may not, perhaps, associate sounds with so much expedition, but they will have the power of recollection in a greater degree. They will have more chances in their favour, besides the great power of voluntary exertion—a power which few passive repeaters ever possess. The following lines are easily learned :—

"Haste, then, ye spirits; to your charge repair;
The fluttering fan be Zephyretta's care;
The drops to thee, Brillante, we consign,
And, Momentilla, let the watch be thine;
Do thou, Crispissa, tend her favourite lock,
Ariel himself shall be the guard of Shock."

To a person who merely learned the sounds in these lines by rote, without knowing the sense of the words, all the advantage of the appropriated names and offices of the sylphs would be lost. No one, who has any sense of propriety, can call these sylphs by wrong names, or put them out of their places. Momentilla and the watch, Zephyretta and the fan, Crispissa and the lock of hair, Brillante and the diamond drops, are so intimately associated, that they necessarily recur together in the memory. The following celebrated lines on Envy, some people will find easy, and others difficult, to learn by heart:—

"Envy will merit, as its shade, pursue;
But, like a shadow, proves the substance true;
For envi'd wit, like Sol eclips'd, makes known
Th' opposing body's grossness, not its own.
When first that sun too pow'rful beams displays,
It draws up vapour, which obscures its rays;
But ev'n those clouds at last adorn its way,
Reflect new glories, and augment the day."

The flow of these lines is not particularly easy; those who trust merely to the power of reiteration in getting them by rote, will find the task difficult; those who seize the ideas, will necessarily recollect their order, and the sense will conduct them to their proper places with certainty; they cannot, for instance, make the clouds adorn the sun's rays before the sun's powerful beams have drawn up the vapours. This fixes the place of the four last lines. The simile of merit and the sun, and envy and the clouds, keeps each idea in its

order; if any one escapes, it is easily missed, and easily recalled.

We seldom meet with those who can give us an accurate account of their own thoughts; it is, therefore, difficult to tell the different ways in which different people manage their memory. We judge by the effects frequently, that causes are the same, which sometimes are entirely different. Thus, we in common conversation should say, that two people had an equally good memory, who could repeat with equal exactness any thing which they had heard or read. But in their methods of remembering, these persons might differ essentially; the one might have exerted much more judgment and ingenuity in the conduct of his memory than the other, and might thus have not only fatigued himself less, but might have improved his understanding, while the other learned merely by rote. When Dr. Johnson reported the parliamentary debates for the Gentleman's Magazine, his judgment, his habit of attending to the order in which ideas follow each other in reasoning, his previous knowledge of the characters and style of the different speakers, must considerably have assisted his memory. His taste for literary composition must have shown him instantly where any argument or allusion was misplaced. A connecting phrase, or a link in a chain of reasoning, is missed as readily by a person used to writing and argument, as a word in a line of poetry is missed by a poetic ear. If any thing has escaped the memory of persons who remember by general classification, they are not only by their art able to discover that something is missing, but they have a general direction where to find it; they know to what class of ideas it must belong; they can hunt from generals to particulars, till they are sure at last of tracing and detecting the deserter; they have certain signs by which they know the object of which they are in search, and they trust with more certainty to these characteristics than to the mere vague recollection of having seen it before. We feel disposed to trust the memory of those who can give us some reason for what they remember. If they can prove to us that their assertion could not, consistently with other facts, be false, we admit the assertion into the rank of facts, and their judgment thus goes surety for their memory.

The following advertisement (taken from the Star of

the 21st September, 1796) may show that experience justifies these theoretic notions:

"LITERATURE.

"A gentleman capable of reporting the debates in parliament, is wanted for a London newspaper A business of no such great difficulty as is generally imagined by those unacquainted with it. A *tolerable* good style, and facility of composition, as well as a facility of writing, together with a good memory (*not an extraordinary one*) are all the necessary requisites. If a gentleman writes shorthand, it is an advantage; but memory and composition are more important.

"The advertiser, conceiving that many gentlemen, either in London or at the universities, or in other parts of the kingdom, may think such a situation desirable, takes this public method of enabling them to obtain it. The salary, which will vary according to the talents of the reporter, will at least afford a genteel subsistence, and the business need not interrupt the pursuit of studies necessary for a more important profession. *A gentleman who has never tried parliamentary reporting, will be preferred by the advertiser, because he has observed, that those who have last attempted it are now the best reporters.*"

In the common mode of education, great exactness of repetition is required from pupils. This seems to be made a matter of too much importance. There are circumstances in life, in which this talent is useful; but its utility, perhaps, we shall find upon examination, is overrated.

In giving evidence of words, dates, and facts, in a court of justice, the utmost precision is requisite. The property, lives, and characters of individuals, depend upon this precision.

But we must observe, that after long detailed evidence has been given by a number of witnesses, an advocate separates the material from the immaterial circumstances, and the judge in his charge again compresses the arguments of the counsel, so that much of what has been said during the trial might as well have been omitted. All these superfluous ideas were *remembered* to no purpose. A witness sometimes, if he be permitted, would tell not only all that he remembers of the circumstances about which he is examined, but also a number of other circumstances, which are casually

associated with these in his memory. An able advocate rejects, by a quickness of judgment which appears like intuition, all that is irrelevant to his argument and his cause; and it is by this selection that *his* memory, in the evidence, perhaps, of twenty different people, is able to retain all that is useful. When this heterogeneous mass of evidence is classed by his perspicuous arrangement, his audience feel no difficulty either in understanding or recollecting all which had before appeared confused. Thus the exercise of the judgment saves much of the labour of memory; labour which is not merely unnecessary, but hurtful to our understanding.

In making observations upon subjects which are new to us, we must be content to use our memory unassisted at first by our reason; we must treasure up the ore and rubbish together, because we cannot immediately distinguish them from each other. But the sooner we can separate them, the better. In the beginning of all experimental sciences, a number of useless particulars are recorded, because they are not known to be useless; when, by comparing these, a few general principles are discovered, the memory is immediately relieved, the judgment and inventive faculty have power and liberty to work, and then a rapid progress and great discoveries are made. It is the misfortune of those who first cultivate new sciences, that their memory is overloaded; but if those who succeed to them submit to the same senseless drudgery, it is not their misfortune, but their fault. Let us look over the history of those who have made discoveries and inventions, we shall perceive, that it has been by rejecting useless ideas that they have first cleared their way to truth. Dr. Priestley's Histories of Vision and of Electricity, are as useful when we consider them as histories of the human mind, as when we read them as histories of science. Dr. Priestley has published a catalogue of books,* from which he gathered his materials. The pains, he tells us, that it cost him to compress and abridge the accounts which ingenious men have given of their own experiments, teach us how much our progress in real knowledge depends upon rejecting all that is superfluous. When Simonides offered to teach Themistocles the art of memory, Themistocles answered, "Rather teach me the art of forgetting; for I find that I remember much that I

* At the end of the History of Vision.

had better forget, and forget (*consequently*) some things which I wish to remember."

When any discovery or invention is completed, we are frequently astonished at its obvious simplicity. The ideas necessary to the discovery are seldom so numerous as to fatigue our memory. Memory seems to have been useful to inventors only as it presented a few ideas in a certain happy connexion, as it presented them faithfully and distinctly to view in the proper moment. If we wish for examples of *the conduct of* the understanding, we need only look into Dr. Franklin's works. He is so free from all affectation, he lays his mind so fairly before us, that he is, perhaps, the best example we can select. Those who are used to look at objects in a microscope, say, that full as much depends upon the object's being well prepared for inspection, as upon the attention of the observer, or the excellence of the glass.

The first thing that strikes us, in looking over Dr. Franklin's works, is the variety of his observations upon different subjects. We might imagine that a very tenacious and powerful memory was necessary to register all these; but Dr. Franklin informs us, that it was his constant practice to note down every hint as it occurred to him: he urges his friends to do the same; he observes, that there is scarcely a day passes without our hearing or seeing something which, if properly attended to, might lead to useful discoveries. By thus committing his ideas to writing, his mind was left at liberty *to think*. No extraordinary effort of memory was, even upon the greatest occasions, requisite. A friend wrote to him to inquire how he was led to his great discovery of the identity of lightning and electricity; and how he first came to think of drawing down lightning from the clouds. Dr. Franklin replies, that he could not answer better than by giving an extract from the minutes he used to keep of the experiments he made, with memoranda of such as he purposed to make, the reasons for making them, and the observations that rose upon them. By this extract, says Dr. Franklin, you will see that the thought was not so much *an out of the way one*, but that it might have occurred to any electrician.*

* "Nov. 7, 1749. Electrical fluid agrees with lightning in these particulars. 1. Giving light. 2. Colour of the light. 3. Crooked direction. 4. Swift motion. 5. Being conducted by metals. 6.

When the ideas are arranged in clear order, as we see them in this note, the analogy or induction to which Dr. Franklin was led appears easy. Why, then, had it never been made by any other person? Numbers of ingenious men were at this time intent upon electricity. The ideas which were necessary to this discovery were not numerous or complicated. We may remark, that one analogy connecting these observations together, they are more easily recollected; and their being written down for a particular purpose, on which Dr. Franklin's mind was intent, must have made it still easier to him to retain them.

The degree of memory he was forced to employ, is thus reduced to a portion in which few people are defective. Now, let us suppose that Dr. Franklin, at the time he wrote his memorandum, had fully in his recollection every previous experiment that had ever been tried on electricity; and not only these, but the theories, names, ages, and private history, of all the men who had tried these experiments; of what advantage would this have been to him? He must have excluded all these impertinent ideas successively as they rose before him, and he must have selected the fifteen useful observations which we have mentioned, from this troublesome multitude. The chance in such a selection would have been against him; the time employed in the examination and rejection of all the unnecessary recollections, would have been absolutely wasted.

We must wish that it were in our power, when we make observations upon nature, or when we read the reflections of others, to arrange our thoughts so as to be ready when we want to reason or invent. When cards are dealt to us, we can sort our hand according to the known probabilities of the game, and a new arrangement is easily made when we hear what is trumps.

In collecting and sorting observations, Dr. Franklin particularly excelled; therefore we may safely con-

Crack or noise in exploding. 7. Subsisting in water or ice. 8. Rending bodies it passes through. 9. Destroying animals. 10. Melting metals. 11. Firing inflammable substances. 12. Sulphureous smell. The electric fluid is attracted by points. We do not know whether this property is in lightning. But since they agree in all the particulars wherein we can already compare them, is it not probable they agree likewise in this? Let the experiment be made."—*Dr. Franklin's Letters, page* 322.

tinue to take him for our example. Wherever he happened to be, in a boat, in a mine, in a printer's shop, in a crowded city or in the country, in Europe or America, he displayed the same activity of observation. When any thing, however trifling, struck him which he could not account for, he never rested till he had traced the effect to its cause. Thus, after having made one remark, he had fresh motive to collect facts, either to confirm or refute an hypothesis; his observations tending consequently to some determinate purpose, they were arranged in the moment they were made, in the most commodious manner, both for his memory and invention; they were arranged either according to their obvious analogies, or their relation to each other as cause and effect. He had two useful methods of judging of the value of his own ideas; he either considered how they could be immediately applied to practical improvements in the arts, or how they could lead to the solution of any of the great problems in science. Here we must again observe, that judgment saved the labour of memory. A person who sets about to collect facts at random, is little better than a magpie, who picks up and lays by any odd bits of money he can light upon, without knowing their use.

Miscellaneous observations which are made by those who have no philosophy, may accidentally lead to something useful; but here we admire the good fortune, and not the genius, of the individuals who make such discoveries: these are prizes drawn from the lottery of science, which ought not to seduce us from the paths of sober industry. How long may an observation, fortunately made, continue to be useless to mankind, merely because it has not been reasoned upon! The trifling observation, that a straight stick appears bent in water, was made many hundred years before the reason of that appearance was discovered! The invention of the telescope might have been made by any person who could have pursued this slight observation through all its consequences.

Having now defined, or rather described, what we mean by *a good memory*, we may consider how the memory should be cultivated. In children, as well as in men, the strength of that habit, or perhaps of that power of the mind, which associates ideas together, varies considerably. It is probable that this difference

may depend sometimes upon organization. A child who is born with any defect in his eyes, cannot possibly have the same pleasure in objects of sight which those enjoy who have strong eyes: ideas associated with these external objects are, therefore, not associated with pleasure, and, consequently, they are not recollected with any sensations of pleasure. An ingenious writer* supposes that all the difference of capacity among men ultimately depends on their original power of feeling pleasure or pain, and their consequent different habits of attention.

When there is any defect in a child's organization, we must have recourse to physics, and not to metaphysics; but even among children who are apparently in the full possession of all their senses, we see very different degrees of vivacity: those who have most vivacity seldom take delight in repeating their ideas; they are more pleased with novelty than prone to habit. Those children who are deficient in vivacity are much disposed to the easy, indolent pleasure, of repetition; it costs them less exertion to say or do the same thing over again, than to attempt any thing new; they are uniformly good subjects to habit, because novelty has no charms to seduce their attention.

The education of the memory in these two classes of children ought not to be the same. Those who are disposed to repetition should not be indulged in it, because it will increase their indolence; they should be excited by praise, by example, by sympathy, and by all the strongest motives that we can employ. Their interest in every thing around them must by all means be increased: when they show eagerness about any thing, no matter what it is, we may then exercise their memory upon that subject with some hopes of success. It is of importance that they should succeed in their first trials, otherwise they will be discouraged from repeating their attempts, and they will distrust their own memory in future. The fear of not remembering will occupy, and agitate, and weaken their minds; they should, therefore, be animated by hope. If they fail, at all events let them not be reproached; the mortification they naturally feel is sufficient; nor should they be left to dwell upon their disappointment; they should have

* Helvetius, "Sur l'Esprit."

a fresh and easier trial given to them, that they may recover their own self-complacency as expeditiously as possible. It may be said that there are children of such a sluggish temperament, that they feel no pleasure in success, and no mortification in perceiving their own mental deficiencies. There are few children of this description: scarcely any, perhaps, whose defects have not been increased by education. Exertion has been made so painful to them, that at length they have sunk into apathy, or submitted in despair to the eternal punishment of shame.

The mistaken notion that the memory must be exercised only in books, has been often fatal to the pupils of literary people. We remember best those things which interest us most; which are useful to us in conversation; in our daily business or amusement. So do children. On these things we should exercise their memory. Tell a boy who has lost his top, to remember at such a particular time to put you in mind of it, and if he does, that you will give him another, he will probably remember your request after this better than you will yourself. Affectionate children will easily extend their recollective memories in the service of their friends and companions. "Put me in mind to give your friend what he asked for, and I will give it to him if you remember it at the right time." It will be best to manage these affairs so that convenience, and not caprice, shall appear to be your motive for the requests. The time and place should be precisely fixed, and something should be chosen which is likely to recall your request at the appointed time. If you say, put me in mind of such a thing the moment the cloth is taken away after dinner; or as soon as candles are brought into the room; or when I go by such a shop in our walk this evening; here are things mentioned which will much assist the young remembrancer: the moment the cloth is taken away, or the candles come, he will recollect, from association, that something is to be done; that *he* has something to do; and presently he will make out what that something is.

A good memory for business depends upon local, well-arranged associations. The man of business makes an artificial memory for himself out of the trivial occurrences of the day, and the hours as they pass recall their respective occupations. Children can acquire

these habits very early in their education; they are eager to give their companions an account of any thing they have seen or heard; their tutors should become their companions, and encourage them by sympathy to address these narrations to them. Children who forget their lessons in chronology and their pence tables, can relate with perfect accuracy any circumstances which have interested themselves. This shows that there is no deficiency in their capacity. Every one who has had any experience of the pleasure of talking, knows how intimately it is connected with the pleasure of being listened to. The auditors, consequently, possess supreme power over narrative childhood; without using any artifice, by simply showing attention to well-arranged and well-recollected narratives, and ceasing to attend when the young orator's memory and story become confused, he will naturally be excited to arrange his ideas. The order of *time* is the first and easiest principle of association to help the memory. This, till young people acquire the ideas of cause and effect, will be their favourite mode of arrangement. Things that happen at the same time, things that are said, thoughts that have occurred at the same time, will recur to the mind together. We may observe, that ill-educated people continue through life to remember things by this single association; and, consequently, there is a heterogeneous collection of ideas in their mind, which have no rational connexion with each other; crowds which have accidentally met, and are forced to live for ever together.

A vulgar witness, when he is examined about his memory of a particular fact, gives as a reason for his remembering it, a relation of a number of other circumstances, which he tells you happened at the same time; or he calls to witness any animate or inanimate objects which he happened to see at the same time. All these things are so joined with the principal fact in his mind, that his remembering them distinctly seems to him, and he expects will seem to others, demonstrative of the truth and accuracy of his principal assertion. When a lawyer tells him he has nothing to do with these ideas, he is immediately at a stand in his narrative; he can recollect nothing, he is sure of nothing; he has no reason to give for his belief, unless he may say that it was Michaelmas-day when such a thing hap-

pened, that he had a goose for dinner that day, or that he had a new wig. Those who have more enlarged minds seldom produce these strange reasons for remembering facts. Indeed, no one can reason clearly, whose memory has these foolish habits; the ill-matched ideas are inseparably joined, and hence they imagine there is some natural connexion between them. Hence arise those obstinate prejudices which no arguments can vanquish.

To prevent children from arguing ill, we must, therefore, take care, in exercising their memory, to discourage them in this method of proving that they remember one thing by telling us a number of others which happened at the same time; rather let them be excited to bring their reasoning faculty into play in support of their memory. Suppose, for instance, that a child had mislaid his hat, and was trying to recollect where he had put it. He first may recollect, from the association of time, that he had the hat the last time he went out; but when he wants to recollect when that time was, he had better go back, if he can, to his motive for going out: this one idea will bring a number of others in right order into his mind. He went out, suppose, to fetch his kite, which he was afraid would be wet by a shower of rain; then the boy recollects that his hat must have been wet by the same rain, and that when he came in, instead of hanging it up in its usual place, it was put before the fire to be dried. What fire, is the next question, &c.

Such an instance as this may appear very trivial; but children whose minds are well managed about trifles, will retain good habits when they are to think about matters of consequence. By exercising the memory in this manner about things, instead of about books and lessons, we shall not disgust and tire our pupils, nor shall we give the false notion that all knowledge is acquired by reading.

Long before children read fluently for their own amusement, they like to hear others read aloud to them, because they have then the entertainment without the labour. We may exercise their memory by asking for an account of what they have heard. But let them never be required to repeat in the words of the book, or even to preserve the same arrangement; let them speak in words of their own, and arrange their ideas to

their own plan; this will exercise at once their judgment, invention, and memory.

"Try if you can explain to me what I have just been explaining to you," a sensible tutor will frequently say to his pupils; and he will suffer them to explain in a different manner from himself; he will only require them to remember what is essential to the explanation. In such repetitions as these the mind is active, therefore it will strengthen and improve.

Children are all, more or less, pleased with the perception of resemblances and of analogy. This propensity assists us much in the cultivation of the memory; but it must be managed with discretion, or it will injure the other powers of the understanding. There is, in some minds, a futile love of tracing analogies, which leads to superstition, to false reasoning, and false taste. The quick perception of resemblances is, in other minds, productive of wit, poetic genius, and scientific invention. The difference between these two classes depends upon this—the one has more judgment, and more the habit of using it, than the other. Children who are pleased by trifling coincidences, by allusions and similitudes, should be taught with great care to reason: when once they perceive the pleasure of demonstration, they will not be contented with the inaccuracy of common analogies. A tutor is often tempted to teach pupils, who are fond of allusions, by means of them, because he finds that they remember well whatever suits their taste for resemblances. By following the real analogies between different arts and sciences, and making use of the knowledge children have on one subject to illustrate another, we may at once amuse their fancy, and cultivate their memory with advantage. Ideas laid up in this manner, will recur in the same order, and will be ready for farther use. When two ideas are remembered by their mutual connexion, surely it is best that they should both of them be substantially useful; and not that one should attend merely to answer for the appearance of the other.

As men readily remember those things which are every day useful to them in business, what relates to their amusements, or to their favourite tastes in arts, sciences, or literature; so children find no difficulty in remembering every thing which mixes daily with their little pleasures. They value knowledge, which is *use-*

ful and *agreeable* to them, as highly as we do; but they consider only the present, and we take the future into our estimate. Children feel no interest in half the things that are committed, with the most solemn recommendations, to the care of their memory. It is in vain to tell them, "You must remember *such a thing*, because it will be useful to you when you grow up to be a man." The child feels like a child, and has no idea of what he may feel when he grows up to be a man. He tries to remember what he is desired, perhaps, because he wishes to please his wiser friends; but if the ideas are remote from his everyday business, if nothing recall them but voluntary exertion, and if he be obliged to abstract his little soul from every thing it holds dear, before he can recollect his lessons, they will have no hold upon his memory; he will feel that recollection is too operose, and he will enjoy none of the "pleasures of memory."

To induce children to exercise their memory, we must put them in situations where they may be immediately rewarded for their exertion. We must create an interest in their minds—nothing uninteresting is long remembered. In a large and literary family, it will not be difficult to invent occupations for children which may exercise all their faculties. Even the conversation of such a family will create in their minds a desire for knowledge; what they hear, will recall to their memory what they read; and if they are encouraged to take a reasonable share in conversation, they will acquire the habit of listening to every thing that others say. By permitting children to talk freely of what they read, we are more likely to improve their memory for books, than by exacting from them formal repetitions of lessons.

Dr. Johnson, who is said to have had an uncommonly good memory, tells us that when he was a boy, he used, after he had acquired any fresh knowledge from his books, to run and tell it to an old woman, of whom he was very fond. This exercise was so agreeable to him, that it imprinted what he read upon his memory.

La Gaucherie, one of the preceptors of Henry IV., having found that he had to do with a young prince of an impatient mind and active genius, little suited to sedentary studies, instead of compelling his pupil to read, taught him by means of conversation: anecdotes

of heroes, and the wise sayings of ancient philosophers, were thus imprinted upon the mind of this prince. It is said that Henry IV. applied, in his subsequent life, all the knowledge he had acquired in this manner, so happily, that learned men were surprised at his memory.*

By these observations we by no means would insinuate, that application to books is unnecessary. We are sensible that accurate knowledge upon any subject cannot be acquired by superficial conversation; that it can be obtained only by patient application. But we mean to point out, that an early taste for literature may be excited in children by conversation; and that their memory should be first cultivated in the manner which will give them the least pain. When there is motive for application, and when habits of industry have been gradually acquired, we may securely trust that our pupils will complete their own education. Nor should we have reason to fear, that those who have a good memory for all other things, should not be able to retain all that is worth remembering in books. Children should never be praised for merely remembering exactly what they read; they should be praised for selecting with good sense what is best worth their attention, and for applying what they remember to useful purposes.

We have observed how much the habit of inventing increases the wish for knowledge, and promotes the interest men take in a number of ideas which are indifferent to uncultivated and indolent people. It is the same with children. Children who invent, exercise their memory with pleasure, from the immediate sense of utility and success. A piece of knowledge which they lay by in their minds, with the hopes of making use of it in some future invention, they have more motives for remembering, than what they merely learn by rote, because they are commanded to do so by the voice of authority.

(June 19th, 1796.) S——, a boy of nine years old, of good abilities, was translating Ovid's description of envy. When he came to the Latin word *suffusa*, he pronounced it as if it had been spelled with a single *f* and a double *s*, *sufussa*; he made the same mistake several

* See Preface to L'Esprit des Romains considéré.

times: at last his father, to *try* whether it would make him remember the right pronunciation, desired him to repeat *suffusa* forty times. The boy did so. About three hours afterward, the boy was asked whether he recollected the word which he had repeated forty times. No, he said, he did not; but he remembered that it meant diffused. His father recalled the word to his mind, by asking him what letter it was that he had sounded as if it had been a double letter; he said *s*. And what double letter did you sound as if it had been single! *f*, said the boy. Then, said his father, you have found out that it was a word in which there were a double *ff* and a single *s*, and that it is the Latin for *diffused*. Oh, *suffusa*, said the boy.

This boy, who had such difficulty in learning a single Latin word by repeating it forty times, showed in other instances that he was by no means deficient in recollective memory. On the contrary, though he read very little, and seldom learned any thing by rote, he applied happily any thing that he read or heard in conversation.

(March 31st, 1796.) His father told him that he had this morning seen a large horn at a gentleman's in the neighbourhood. It was found thirty spades' depth below the surface of the earth, in a bog. With the horn was found a carpet, and wrapped up in the carpet a lump of tallow. "Now," said his father, "how could that lump of tallow come there? Or was it tallow, do you think? Or what could it be?"

H—— (a boy of fourteen, brother to S——) said, he thought it might have been buried by some robbers, after they had committed some robbery; he thought the lump was tallow.

S—— said, "Perhaps some dead body might have been wrapped up in the carpet and buried; and the dead body might have turned into tallow."*

"How came you," said his father, "to think of a dead body's turning into tallow?"

"You told me," said the boy, "you read to me, I mean, an account of some dead bodies that had been buried a great many years, which had turned into tallow."

"Spermaceti," you mean? "Yes."

S—— had heard the account he alluded to above two

* See the account in the Monthly Review.

months before this time. No one in company recollected it except himself, though several had heard it.

Among the few things which S—— had learned by heart, was the Hymn to Adversity. A very slight circumstance may show that he did not get this poem merely as a tiresome lesson, as children sometimes learn by rote what they do not understand, and which they never recollect except in the arduous moments of formal repetition.

A few days after S—— had learned the Hymn to Adversity, he happened to hear his sister say to a lady, "I observed you pitied me for having had a whitlow on my finger more than anybody else did, because you have had one yourself." S——'s father asked him why he smiled. "Because," said S——, "I was thinking of the *song*,* the *hymn* to Adversity:

"'And from her own, she learned to melt at others' wo.'"

A recollective memory of books appears early in children who are not overwhelmed with them; if the impressions made upon their minds be distinct, they will recur with pleasure to the memory when similar ideas are presented.

July, 1796. S—— heard his father read Sir Brook Boothby's excellent epitaph upon Algernon Sidney; the following lines pleased the boy particularly:

"Approach, contemplate this immortal name,
Swear on this shrine to emulate his fame;
To dare, like him, e'en to thy latest breath,
Contemning chains, and poverty, and death."

S——'s father asked him why he liked these lines, and whether they put him in mind of any thing that he had heard before. S—— said, "It puts me in mind of Hamilcar's making his son Hannibal swear to hate the Romans and love his countrymen eternally. But I like *this* much better. I think it was exceedingly foolish and wrong of Hamilcar to make his son swear always to hate the Romans."

Latin lessons are usually so very disagreeable to boys, that they seldom are pleased with any allusions to them; but by good management in a tutor, even these lessons may be associated with agreeable ideas. Boys should

* He had tried to sing it to the tune of "Hope, thou nurse of young desire."

be encouraged to talk and think about what they learn in Latin, as well as what they read in English; they should be allowed to judge of the characters described in ancient authors, to compare them with our present ideas of excellence, and thus to make some use of their learning. It will then be not merely engraved upon their memory in the form of lessons, it will be mingled with their notions of life and manners; it will occur to them when they converse and when they act; they will possess the admired talent for classical allusion, as well as all the solid advantages of an unprejudiced judgment. It is not enough that gentlemen should be masters of the learned languages, they must know how to produce their knowledge without pedantry or affectation. The memory may in vain be stored with classical precedents, unless these can be brought into use in speaking or writing, without the parade of dull citation or formal introduction. "Sir," said Dr. Johnson, to some prosing tormentor, "I would rather a man would knock me down than begin to talk to me of the Punic Wars." A public speaker who rises in the House of Commons with pedantry prepense to quote Latin or Greek, is coughed or laughed down; but the beautiful unpremeditated classical allusions of Burke or Sheridan, sometimes conveyed in a single word, seize the imagination irresistibly.

Since we perceive that memory is chiefly useful as it furnishes materials for invention, and that invention can greatly abridge the mere labour of accumulation, we must examine how the inventive faculty can be properly exercised. The vague precept, Cultivate the memory and invention of young people at the same time, will not inform parents how this is to be accomplished; we trust, therefore, that we may be permitted, contrary to the custom of didactic writers, to illustrate a general precept by a few examples; and we take these examples from real life, because we apprehend that fictions, however ingenious, will never advance the science of education so much as simple experiments.

No elaborate theory of invention shall here alarm parents. It is a mistake to suppose that the inventive faculty can be employed only on important subjects; it can be exercised in the most trifling circumstances of domestic life. Scarcely any family can be so unfortunately situated, that they may not employ the ingenuity

of their children without violent exertion, or any grand apparatus. Let us only make use of the circumstances which happen every hour. Children are interested in every thing that is going forward. Building, or planting, or conversation, or reading; they attend to every thing, and from every thing might they with a little assistance obtain instruction. Let their useful curiosity be encouraged; let them make a part of the general society of the family, instead of being treated as if they had neither senses nor understanding. When any thing is to be done, let them be asked to invent the best way of doing it. When they see that their invention becomes immediately useful, they will take pleasure in exerting themselves.

June 4th, 1796. A lady who had been ruling pencil lines for a considerable time, complained of its being a tiresome operation; and she wished that a quick and easy way of doing it could be invented. Somebody present said he had seen pens for ruling music books, which ruled four lines at a time; and it was asked whether a leaden rake could not be made to rule a sheet of paper at once.

Mr. —— said he thought such a pencil would not rule well; and he called to S—— (the same boy we mentioned before), and asked him if he could invent any method of doing the business better. S—— took about a quarter of an hour to consider; and he then described a little machine for ruling a sheet of paper at a single stroke, which his father caused to be made for him. It succeeded well, and this success was the best reward he could have.

Another day Mr. —— observed, that the maid whose business it was to empty a bucket of ashes into an ash-hole, never could be persuaded to do it, because the ashes were blown against her face by the wind; and he determined to invent a method which should make it convenient to her to do as she was desired. The maid usually threw the ashes into a heap on the sheltered side of a wall; the thing to be done was, to make her put the bucket through a hole in this wall, and empty the ashes on the other side. This problem was given to all the children and grown up persons in the family. One of the children invented the shelf, which, they said, should be like part of the vane of a winnowing machine which they had lately seen; the manner of placing this

vane, another of the children suggested: both these ideas, joined together, produced the contrivance that was wanted.

A little model was made in wood of this bucket, which was a pretty toy. The thing itself was executed, and was found useful.

June 8th, 1796. Mr. —— was balancing a pair of scales very exactly, in which he was going to weigh some opium: this led to a conversation upon scales and weighing. Some one said that the dealers in diamonds must have very exact scales, as the difference of a grain makes such a great difference in their value. S—— was very attentive to this conversation. M—— told him, that jewellers always, if they can, buy diamonds when the air is light, and sell them when it is heavy. S—— did not understand the reason of this, till his father explained to him the general principles of hydrostatics, and showed him a few experiments with bodies of different specific gravity: these experiments were distinctly understood by everybody present. The boy then observed, that it was not fair of the jewellers to buy and sell in this manner; they should not, said he, use *these* weights. Diamonds should be the weights. Diamonds should be weighed against diamonds.

November, 1795. One day after dinner, the candles had been left for some time without being snuffed; and Mr. —— said he wished candles could be made which would not require snuffing.

Mrs. ******** thought of cutting the wick into several pieces before it was put into the candle, that so, when it burned down to the divisions, the wick might fall off. M—— thought that the wick might be tied tight round at intervals, before it was put into the candle; that when it burned down to the places where it was tied, it would snap off: but Mr. —— objected, that the candle would most likely go out when it had burned down to her knots. It was then proposed to send a stream of oxygen through the candle, instead of a wick. M—— asked if some substance might not be used for wicks which should burn into powder and fly off, or sublime. Mr. —— smiled at this, and said, "*Some substance;* some *kind of air;* some *chymical mixture!*" A person ignorant of chymistry always talks of it as an ignorant person in mechanics always says, "Oh, you can do it somehow with *a spring*."

As the company could not immediately discover any way of making candles which should not require to be snuffed, they proceeded to invent ways of putting out a candle at a certain time without hands. The younger part of the company had hopes of solving this problem, and every eye was attentively fixed upon the candle.

"How would you put it out, S——?" said Mr. ——. S—— said, that if a weight a very little lighter than the extinguisher were tied to a string, and if the string were put over a pulley, and if *the* extinguisher were tied to the other end of the string, and the candle put exactly under the extinguisher; the extinguisher would move very, very gently down, and at last put out the candle.

Mr. —— observed, that while it was putting out the candle there would be a disagreeable smell, because the extinguisher would be a considerable time moving *very, very gently down*, over the candle, after the candle had begun to go out.

C—— (a girl of twelve years old) spoke next. "I would tie an extinguisher to one end of a thread. I would put this string through a pulley fastened to the ceiling; the other end of this string should be fastened to the middle of another thread, which should be strained between two posts set upright on each side of the candle, so that the latter string might lean against the candle at any distance *you want* below the flame. When the candle burns down to this string, it will burn it in two, and the extinguisher will drop upon the candle."

This is the exact description of *the weaver's alarm*, mentioned in the Philosophical Transactions, which C—— had never seen or heard of.

Mr. —— now showed us the patent extinguisher, which was much approved by all the rival inventors.

It is very useful to give children problems that have already been solved, because they can immediately compare their own imperfect ideas with successful inventions which have actually been brought into real use. We know beforehand what ideas are necessary to complete the invention, and whether the pupil has all the necessary knowledge. Though by the courtesy of poetry, a creative power is ascribed to inventive genius, yet we must be convinced that no genius can invent without materials. Nothing can come of nothing. Invention is nothing more than the new combination of materials. We must judge in general of the ease or diffi-

culty of any invention, either by the number of ideas necessary to be combined, or by the dissimilarity or analogy of those ideas. In giving any problem to children, we should not only consider whether they know all that is necessary upon the subject, but also, whether that knowledge is sufficiently *familiar* to their minds; whether circumstances are likely to recall it; and whether they have a perfectly clear idea of the thing to be done. By considering all these particulars, we may pretty nearly proportion our questions to the capacity of the pupil; and we may lead his mind on, step by step, from obvious to intricate inventions.

July 30th, 1796. L——, who had just returned from Edinburgh, and had taken down, in two large volumes, Dr. Black's Lectures, used to read to us part of them, for about a quarter of an hour, every morning after breakfast. He was frequently interrupted (which interruptions he bore with heroic patience) by Mr. ——'s explanations and comments. When he came to the expansive power of steam, and to the description of the different steam-engines which have been invented, Mr. —— stopped to ask B——, C——, and S——, to describe the steam-engine in their own words. They all described it in such a manner as to show that they clearly understood the principle of the machine. Only the general principle had been explained to them. L——, after having read the description of Savary's and Newcomen's steam-engines, was beginning to read the description of that invented by Mr. Watt; but Mr. —— stopped him, that he might try whether any person present could invent it. Mr. E—— thus stated the difficulty: "In the old steam-engine, cold water, you know, is thrown into the cylinder to condense the steam; but in condensing the steam, the cold water at the same time cools the cylinder. Now the cylinder must be heated again before it can be filled with steam; for till it is heated, it will condense the steam. There is, consequently, a great waste of heat and fuel in the great cylinder. How can you condense the steam without cooling the cylinder?"

S——. "Let down a cold tin tube into the cylinder when you want to condense the steam, and draw it up again as soon as the steam is condensed; or, if you could, put a *cylinder* of ice up the great tube."

Some of the company next asked if a horizontal

plate of cold metal, made to slide up the inside of the cylinder, would condense the steam. The edges of the plate only would touch the cylinder; the surface of the plate might condense the steam.

"But," said Mr. ——, "how can you introduce and withdraw it?"

C—— (a girl of 12) then said, "I would put a cold vessel to condense the steam at the top of the cylinder."

Mr. ——. "So as to touch the cylinder, do you mean?"

C——. "No, not so as to touch the cylinder, but at some distance from it."

Mr. ——. "Then the cold air would rush into the cylinder while the steam was passing from the cylinder to your condenser."

C——. "But I would cover in the cold vessel, and I would cover in the passage to it."

M——. "I have the pleasure of informing you, that you have invented part of the great Mr. Watt's improvement on the steam-engine. You see how it facilitates invention, to begin by stating the difficulty clearly to the mind. This is what every practical inventor does when he invents in mechanics."

L—— (smiling.) "And what *I* always do in inventing a mathematical demonstration."

To the good-natured reader we need offer no apology; to the illnatured we dare attempt none, for introducing these detailed views of the first attempts of young invention. They are not exhibited as models, either to do honour to the tutor or his pupils; but simply to show how the mind may be led from the easiest steps, to what are supposed to be difficult, in education. By imagining ourselves to be in the same situation with children, we may guess what things are difficult to them; and if we can recollect the course of our own minds in acquiring knowledge or in inventing, we may, by retracing the same steps, instruct others. The order that is frequently followed by authors, in the division and subdivision of their elementary treatises, is not always the best for those who are to learn. Such authors are usually more intent upon proving to the learned that they understand their subject, than upon communicating their knowledge to the ignorant. Parents and tutors must, therefore, supply familiar oral instruction, and those simple, but essential explanations, which books disdain or neglect to give. And there is this advantage

in all instruction given in conversation, that it can be made interesting by a thousand little circumstances which are below the dignity of didactic writers. Gradually we may proceed from simple to more complicated contrivances. The invention of experiments to determine a theory, or to ascertain the truth of an assertion, must be particularly useful to the understanding. Any person who has attended to experiments in chymistry and natural philosophy, must know that invention can be as fully and elegantly displayed upon these subjects, as upon any in the fine arts or literature. There is one great advantage in scientific invention; it is not dependant upon capricious taste for its reward. The beauty and elegance of a poem may be disputed by a thousand amateurs; there can be but one opinion about the truth of a discovery in science.

Independent of all ambition, there is considerable pleasure in the pursuit of experimental knowledge. Children especially, before they are yet fools to fame, enjoy this substantial pleasure. Nor are we to suppose that children have not capacities for such pursuits; they are peculiarly suited to their capacity. They love to see experiments tried, and to try them. They show this disposition not only wherever they are encouraged, but wherever they are permitted to show it; and if we compare their method of reasoning with the reasonings of the learned, we shall sometimes be surprised. They have no prejudices, therefore they have the complete use of all their senses; they have few ideas, but those few are distinct; they can be analyzed and compared with ease: children, therefore, judge and invent better, *in proportion to their knowledge*, than most grown up people.

Dr. Hooke observes, that a sensible man, in solving any philosophical problem, should always lean to that side which is opposite to his favourite taste. A chymist is disposed to account for every thing by chymical means; a geometrician is inclined to solve every problem geometrically; and a mechanic accounts for all the phenomena of nature by the laws of mechanism. This undue bias upon the minds of ingenious people, has frequently rendered their talents less useful to mankind. It is the duty of those who educate ingenious children, to guard against this species of scientific insanity.

There are prejudices of another description, which are

fatal to inventive genius; some of these are usually found to attend ignorance, and others sometimes adhere to the learned. Ignorant people, if they possess any degree of invention, are so confident in their own abilities, that they will not take the pains to inquire what others have thought or done; they disdain all general principles, and will rather scramble through some by-path of their own striking out, than condescend to be shown the best road by the most enlightened guide. For this reason, self-taught geniuses, as they are called, seldom go beyond a certain point in their own education, and the praise we bestow upon their ingenuity is always accompanied with expressions of regret: "It is a pity that such a genius had not the advantages of a good education."

The learned, on the contrary, who have been bred up in reverence for established opinions, and who have felt in many instances the advantage of general principles, are apt to adhere too pertinaciously to their theories, and hence they neglect or despise new observations. How long did the maxim that nature abhors a vacuum, content the learned! And how many discoveries were retarded by this single false principle! For a great number of years it was affirmed and believed, that all objects were seen by the intervention of visual rays, proceeding from the eye, much in the same manner as we feel any object at a distance from us by the help of a stick.* While this absurd analogy satisfied the mind, no discoveries were made in vision—none were attempted. A prepossession often misleads the industry of active genius. Dr. Hooke, in spite of the ridicule which he met with, was firm in his belief that mankind would discover some method of sailing in the air. Balloons have justified his prediction; but all his own industry in trying experiments upon flying was wasted, because he persisted in following a false analogy to the wings of birds. He made wings of various sorts; till he took it for granted that he *must* learn to fly by mechanical means: had he applied to chymistry, he might have succeeded. It is curious to observe how nearly he once touched upon the discovery, and yet, misled by his prepossessions, quitted his hold. He observed that the air-cells† of fishes are filled with air, which

* Priestley on Vision, vol. i. page 23.

† See Hooke's Posthumous Works.

buoys them up in the water; and he supposes that this air is lighter than *common* air. Had he pursued this idea, he might have invented balloons; but he returned with fatal perseverance to his old theory of wings. From such facts we may learn the power and danger of prejudice in the most ingenious minds; and we shall be careful to preserve our pupils early from its blind dominion.

The best preservation against the presumption to which ignorance is liable, and the best preservative against the self-sufficiency to which the learned are subject, is the habit of varying our studies and occupations. Those who have a general view of the whole map of human knowledge, perceive how many unexplored regions are yet to be cultivated by future industry; nor will they implicitly submit to the reports of ignorant voyagers. No imaginary pillars of Hercules will bound their enterprises. There is no presumption in believing that much more is possible to science than ever human ingenuity has executed; therefore young people should not be ridiculed for that sanguine temper which excites to great inventions. They should be ridiculed only when they imagine that they possess the means of doing things to which they are unequal. The fear of this deserved ridicule will stimulate them to acquire knowledge, and will induce them to estimate cautiously their own powers before they hazard their reputation. We need not fear that this caution should repress their activity of mind; ambition will secure their perseverance, if they are taught that every acquisition is within the reach of unremitting industry. This is not an opinion to be artfully inculcated to serve a *particular* purpose, but it is an opinion drawn from experience; an opinion which men of the highest abilities and integrity, of talents and habits the most dissimilar, have confirmed by their united testimony. Helvetius maintained that no great man ever formed a great design which he was not also capable of executing.

Even where great perseverance is exercised, the choice of the subjects on which the inventive powers are employed determines, in a great measure, their value: therefore, in the education of ingenious children, we should gradually turn their attention from curious trifles to important objects. Boverick,* who made chains "to

* Hooke's Mycrographia, p. 62.

yoke a flea," must have possessed exquisite patience: besides his chain of two hundred links, with its padlock and key, all weighing together less than the third part of a grain, this indefatigable *minute artificer* was the maker of a landau, which opened and shut by springs: this equipage, with six horses harnessed to it, a coachman sitting on the box, with a dog between his legs, four inside and two outside passengers, besides a postillion riding one of the fore-horses, was drawn with all the ease and safety imaginable by a well-trained flea! The inventor and executor of this puerile machine bestowed on it, probably, as much time as would have sufficed to produce Watt's fire-engine, or Montgolfier's balloon. It did not, perhaps, cost the Marquis of Worcester more exertion to draw out his celebrated century of inventions; it did not, perhaps, cost Newton more to write those queries which Maclaurin said he could never read without feeling his hair stand an end with admiration.

Brebeuf, a French wit, wrote a hundred and fifty epigrams upon a painted lady; a brother wit, fired with emulation, wrote upon the same subject three hundred more, making, in all, four hundred and fifty epigrams, each with appropriate turns of its own. Probably Pope and Parnell did not rack their invention so much, or exercise more industry in completing "The Rape of the Lock," and "The Rise of Woman." These will live for ever; who will read the four hundred and fifty epigrams?

The most effectual methods to discourage in young people the taste for frivolous ingenuity will be, never to admire these "laborious nothings;" to compare them with useful and elegant inventions, and to show that vain curiosities can be but the wonder and amusement of a moment. Children who begin with trifling inventions, may be led from these to general principles; and with their knowledge their ambition will necessarily increase. It cannot be expected that the most enlarged plan of education could early give an intimate acquaintance with all the sciences; but with their leading principles, their general history, their present state, and their immediate desiderata,* young people may, and ought to be, made acquainted. Their own industry will afterward collect more precise information, and they

* Priestley has ably given the desiderata of electricity, vision, &c.

will never waste their time in vain studies and fruitless inventions. Even if the cultivation of the memory were our grand object, this plan of education will succeed. When the Abbé de Longuerue, whose prodigious memory we have formerly mentioned, was asked by the Marquis d'Argenson, how he managed to arrange and retain in his head every thing that entered it, and to recollect every thing when wanted?—the abbé answered—

"Sir, the elements of every science must be learned while we are very young; the first principles of every language—the a b c, as I may say, of every kind of knowledge—this is not difficult in youth, especially as it is not necessary to penetrate far; simple notions are sufficient; when once these are acquired, every thing we read afterward finds its proper place."

CHAPTER XXII.

TASTE AND IMAGINATION.

Figurative language seems to have confounded the ideas of most writers upon metaphysics. Imagination, Memory, and Reason, have been long introduced to our acquaintance as allegorical personages, and we have insensibly learned to consider them as real beings. The "viewless regions" of the soul have been portioned out among these ideal sovereigns; but disputes have, nevertheless, sometimes arisen concerning the boundaries of intellectual provinces. Among the disputed territories, those of Imagination have been most frequently the seat of war; her empire has been subject to continual revolution; her dominions have been, by potent invaders, divided and subdivided. Fancy,* Memory,† Ideal presence,‡ and Conception,§ have shared her spoils.

By poets, imagination has been addressed as the great parent of genius—as the arbiter, if not the creator, of our pleasures; by philosophers her name has been some-

* Wharton's Ode to Fancy.
† Gerard.
‡ Lord Kames.
§ Professor Stewart.

times pronounced with horror; to her fatal delusions they have ascribed all the crimes and miseries of mankind. Yet, even philosophers have not always agreed in their opinions: while some have treated Imagination with contempt, as the irreconcilable enemy of Reason, by others* she has been considered with more respect, as Reason's inseparable friend; as the friend who collects and prepares all the arguments upon which Reason decides; as the injured, misrepresented power, who is often forced to supply her adversaries with eloquence, who is often called upon to preside at her own trial, and to pronounce her own condemnation.

Imagination is "*the power*," we are told, of "*forming images:*" the word image, however, does not, strictly speaking, express any thing more than a representation of an object of sight; but the power of imagination extends to objects of all the senses.

> "I hear a voice you cannot hear,
> Which says I must not stay:
> I see a hand you cannot see,
> Which beckons me away."

Imagination hears the voice, as well as sees the hand; by an easy license of metaphor, what was originally used to express the operation of our senses, is extended to them all. We do not precisely say that imagination forms *images* of past sounds, or tastes, or smells: but we say that she forms ideas of them: and ideas, we are told, are mental images. It has been suggested by Dr. Darwin, that all these analogies between images and thoughts have, probably, originated in our observing the little pictures painted on the retina of the eye.

It is difficult, certainly, if not impossible, to speak of the invisible operations of the mind or body, without expressing ourselves in metaphor of some kind or other; and we are easily misled by allusions to sensible objects, because when we comprehend the allusion, we flatter ourselves that we understand the theory which it is designed to illustrate. Whether we call ideas images in popular language, or vibrations, according to Dr. Hartley's system, or modes of sensation, with Condillac, or motions of the sensorium, in the language of Dr. Darwin, may seem a matter of indifference. But even the

* See an excellent essay of Mr. Barnes's on Imagination Manchester Society, vol. i.

choice of names is not a matter of indifference to those who wish to argue accurately; when they are obliged to describe their feelings or thoughts by metaphoric expressions, they will prefer the simplest; those with which the fewest extraneous associations are connected. Words which call up a variety of heterogeneous ideas to our minds, are unfit for the purposes of sober reasoning; our attention is distracted by them, and we cannot restrain it to the accurate comparison of simple proportions. We yield to pleasing revery, instead of exerting painful voluntary attention. Hence it is probably useful in our attempts to reason, especially upon metaphysical subjects, to change from time to time our nomenclature, and to substitute terms which have no relation to our old associations, and which do not affect the prejudices of our education. We are obliged to define with some degree of accuracy the sense of new terms, and we are thus led to compare our old notions with more severity. Our superstitious reverence for mere symbols is also dissipated; symbols are apt to impose even upon those who acknowledge their vanity, and who profess to consider them merely as objects of vulgar worship.

When we call a class of our ideas *images* and pictures, a tribe of associations with painting comes into our mind, and we argue about Imagination as if she were actually a painter, who has colours at her command, and who, upon some invisible canvass in the soul, portrays the likeness of all earthly and celestial objects. When we continue to pursue the same metaphor, in speaking of the moral influence of Imagination, we say that her *colouring* deceives us, that her *pictures* are flattering and false, that she draws objects out of proportion, &c. To what do all these metaphors lead? We make no new discoveries by talking in this manner; we do not learn the cause or the cure of any of the diseases of the mind; we only persuade ourselves that we know something, when we are really ignorant.

We have sedulously avoided entering into any metaphysical disquisitions; but we have examined with care the systems of theoretic writers, that we may be able to avail ourselves of such of their observations as can be reduced to practice in education. With respect to the arts, imagination may be considered practically in two points of view; as it relates to our taste, and as it relates to our talents for the arts. Without being a

poet or an orator, a man may have a sufficient degree of imagination to receive pleasure from the talents of others; he may be a critical judge of the respective merits of orators, poets, and artists. This sensibility to the pleasures of the imagination, when judiciously managed, adds much to the happiness of life, and it must be peculiarly advantageous to those who are precluded by their station in society from the necessity of manual labour. Mental exercise and mental amusements, are essential to persons in the higher ranks of life, who would escape from the fever of dissipation or from the lethargy of ennui. The mere physical advantages which wealth can procure, are reducible to the short sum of "*meat, fire, and clothes.*" A nobleman of the highest birth, and with the longest line of ancestry, inherits no intuitive taste, nor can he purchase it from the artist, the painter, or the poet; the possession of the whole Pinelli library could not infuse the slightest portion of literature. Education can alone give the full power to enjoy the real advantages of fortune. To educate the taste and the imagination, it is not necessary to surround the heir of an opulent family with masters and connoisseurs. Let him never hear the jargon of amateurs, let him learn the art "not to admire." But in his earliest childhood cultivate his senses with care, that he may be able to see and hear, to feel and understand, for himself. Visible images he will rapidly collect in his memory; but these must be selected, and his first associations must not be trusted to accident. Encourage him to observe with attention all the works of nature, but show him only the best imitations of art; the first objects that he contemplates with delight, will remain long associated with pleasure in his imagination; you must, therefore, be careful that these early associations accord with the decisions of those who have determined the national standard of taste. In many instances taste is governed by arbitrary and variable laws; the fashions of dress, of decoration, of manner, change from day to day; therefore no exclusive prejudices should confine your pupil's understanding. Let him know, as far as we know them, the general principles which govern mankind in their admiration of the sublime and beautiful; but at the same time give him that enlarged toleration of mind, which comprehends the possibility of a taste different from our own. Show him, and you need

not go farther than the Indian screen, or the Chinese paper in your drawing-room, for the illustration, that the sublime and beautiful vary at Pekin, at London, on Westminster bridge, and on the banks of the Ganges. Let your young pupil look over a collection of gems or of ancient medals; it is necessary that his eye should be early accustomed to Grecian beauty, and to all the classic forms of grace. But do not suffer him to become a bigot, though he may be an enthusiast in his admiration of the antique. Short lessons upon this subject may be conveyed in a few words. If a child sees you look at the bottom of a print for the name of the artist before you will venture to pronounce upon its merits, he will follow your example, and he will judge by the authority of others, and not by his own taste. If he hears you ask, Who wrote this poem? Who built this palace? Is this a genuine antique? he will ask the same questions before he ventures to be pleased. If he hears you pronounce with emphasis that such a thing comes from Italy, and therefore must be in good taste, he will adopt the same compendious method of decision upon the first convenient occasion.

He will not trouble himself to examine why utility pleases, nor will he analyze his taste, or discover why one proportion or one design pleases him better than another; he will, if by example you teach him prejudice, content himself with repeating the words, proportion, antique, picturesque, &c., without annexing to them any precise ideas.

Parents who have not turned their attention to metaphysics, may, perhaps, apprehend that they have something very abstruse or intricate to learn, before they can instruct their pupils in the principles of taste: but these principles are simple, and two or three entertaining books, of no very alarming size, comprise all that has yet been ascertained upon this subject. Vernet's Théorie des Sentimens Agréables; Hogarth's Analysis of Beauty; an Essay of Hume on the standard of Taste; Burke's Sublime and Beautiful; Lord Kames's Elements of Criticism; Sir Joshua Reynolds's Discourses; and Alison on Taste, contain so much instruction, mixed with so much amusement, that we cannot think that it will be a *terrible task* to any parent to peruse them.

These books are above the comprehension of children; but the principles which they contain can be

very early illustrated in conversation. It will be easy, in familiar instances, to show children that the fitness, propriety, or utility of certain forms, recommends them to our approbation: that uniformity, an appearance of order and regularity, are, in some cases, agreeable to us; contrast, in others: that one class of objects pleases us from habit, another from novelty, &c. The general principle that governs taste, in the greatest variety of instances, is the association of ideas; and this, fortunately, can be most easily illustrated.

"I like such a person, because her voice puts me in mind of my mother's. I like this walk, because I was very happy the last time I was here with my sister. I think green is the prettiest of all colours; my father's room is painted green, and it is very cheerful, and I have been very happy in that room; and, besides, the grass is green in spring." Such simple observations as these come naturally from children; they take notice of the influence of association upon their taste, though, perhaps, they may not extend their observations so as to deduce the general principle according to philosophical forms. We should not lay down for them this or any other principle of taste, as a rule which they are to take for granted; but we should lead them to class their own desultory remarks, and we should excite them to attend to their own feelings, and to ascertain the truth by experiments upon themselves. We have often observed, that children have been much entertained with comparing the accidental circumstances they have met with, and the unpremeditated expressions used in conversation, with any general maxim. In this point of view we may render even general maxims serviceable to children, because they will excite to experiment: our pupils will detect their falsehood, or, after sufficient reflection, acknowledge their truth.

Perhaps it may be thought that this mode of instruction will tend rather to improve the judgment than the taste; but every person of good taste must also have a good judgment in matters of taste: sometimes the judgment may have been partially exercised upon a particular class of objects, and its accuracy of discrimination may be confined to this one object; therefore we hastily decide, that, because men of taste may not always be men of universally good judgment, these two powers of the mind are unnecessary to each other. By teach-

ing the philosophy, at the same time that we cultivate the pleasures, of taste, we shall open to our pupils a new world; we shall give them a new sense. The pleasure of every effect will be increased by the perception of its cause; the magic of the scenery will not lose its power to charm, though we are aware of the secret of the enchantment.

We have hitherto spoken of the taste for what is beautiful; a taste for the sublime we should be cautious in cultivating. Obscurity and terror are two of the grand sources of the sublime; analyze the feeling, examine accurately the object which creates the emotion, and you dissipate the illusion, you annihilate the pleasure.

"What seemed its head, the likeness of a kingly crown had on."

The indistinctness of the head and of the kingly crown, makes this a sublime image. Upon the same principle,

"Danger, whose limbs of giant mould,
No mortal eye can fix'd behold,"

always must appear sublime as long as the passion of fear operates. Would it not, however, be imprudent in education to permit that early propensity to superstitious terrors, and that temporary suspension of the reasoning faculties, which are often essential to our taste for the sublime? When we hear of "Margaret's grimly ghost," or of the "dead still hour of night," a sort of awful tremor seizes us, partly from the effect of early associations, and partly from the solemn tone of the reader. The early associations which we perhaps have formed of terror, with the ideas of apparitions, and winding-sheets, and sable shrouds, should be unknown to children. The silent, solemn hour of midnight, should not to them be an hour of terror. In the following poetic description of the beldam telling dreadful stories to her infant audience, we hear only of the pleasures of the imagination; we do not recollect how dearly these pleasures must be purchased by their votaries:

"* * * * * * finally by night
The village matron, round the blazing hearth,
Suspends the infant audience with her tales,
Breathing astonishment! of witching rhymes,
And evil spirits; of the death-bed call
Of him who robb'd the widow, and devour'd

> The orphan's portion; of the unquiet souls
> Ris'n from the grave to ease the heavy guilt
> Of deeds in life concealed; of shapes that walk
> At dead of night, and clank their chains, and wave
> The torch of hell around the murd'rer's bed.
> At every solemn pause the crowd recoil,
> Gazing each other speechless, and congeal'd
> With shiv'ring sighs; till, eager for th' event,
> Around the beldam all erect they hang,
> Each trembling heart with grateful terrors quell'd."*

No prudent mother will ever imitate this eloquent village matron, nor will she permit any beldam in the nursery to conjure up these sublime shapes, and to quell the hearts of her children with these grateful terrors. We were once present when a group of speechless children sat listening to the story of Blue-beard, "breathing astonishment." A gentleman who saw the charm beginning to operate, resolved to counteract its dangerous influence. Just at the critical moment when the fatal key drops from the trembling hands of the imprudent wife, the gentleman interrupted the awful pause of silence that ensued, and requested permission to relate the remainder of the story. Tragicomedy does not offend the taste of young, so much as of old critics; the transition from grave to gay was happily managed. Blue-beard's wife afforded much diversion, and lost all sympathy the moment she was represented as a curious, tattling, timid, ridiculous woman. The terrors of Blue-beard himself subsided when he was properly introduced to the company; and the *dénouement* of the piece was managed much to the entertainment of the audience; the catastrophe, instead of freezing their young blood, produced general laughter. Ludicrous images, thus presented to the mind which has been prepared for horror, have an instantaneous effect upon the risible muscles: it seems better to use these means of counteracting the terrors of the imagination, than to reason upon the subject while the fit is on; reason should be used between the fits.† Those who study the minds of children know the nice touches which affect their imagination, and they can, by a few words, change their feelings by the power of association.

* Akenside.

† "Know there are words and spells which can control,
Between the fits, the fever of the soul."—Pope.

Ferdinand Duke of Tuscany was once struck with the picture of a child crying: the painter,† who was at work upon the head, wished to give the duke a proof of his skill: by a few judicious strokes, he converted the crying into a laughing face. The duke, when he looked at the child again, was in astonishment: the painter, to show himself master of the human countenance, restored his first touches; and the duke, in a few moments, saw the child weeping again. A preceptor may acquire similar power over the countenance of his pupil, if he has studied the oratorical art. By the art of oratory, we do not mean the art of misrepresentation, the art of deception; we mean the art of showing the truth in the strongest light; of exciting virtuous enthusiasm and generous indignation. Warm, glowing eloquence is not inconsistent, with accuracy of reasoning and judgment. When we have expressed our admiration or abhorrence of any action or character, we should afterward be ready coolly to explain to our pupils the justice of our sentiments: by this due mixture and alternation of eloquence and reasoning, we may cultivate a taste for the moral and sublime, and yet preserve the character from any tincture of extravagant enthusiasm. We cannot expect that the torrent of passion should never sweep away the landmarks of exact morality; but after its overflowing impetuosity abates, we should take a calm survey of its effects, and we should be able to ascertain the boundaries of right and wrong with geometrical precision.

There is a style of bombast morality affected by some authors, which must be hurtful to young readers. Generosity and honour, courage and sentiment, are the striking qualities which seize and enchant the imagination in romance; these qualities must be joined with justice, prudence, economy, patience, and many humble virtues, to make a character really estimable; but these would spoil the effect, perhaps, of dramatic exhibitions.

Children may with much greater safety see hideous, than gigantic representations of the passions. Richard the Third excites abhorrence; but young Charles de Moor, in "The Robbers," commands our sympathy; even the enormity of his guilt exempts him from all ordinary modes of trial; we forget the murderer, and

* Peter of Cortona.

see something like a hero. It is curious to observe, that the legislature in Germany and in England have found it necessary to interfere as to the representation of Captain Mac Heath and Charles de Moor, two characters in which the tragic and the comic muse have had powerful effects in exciting imitation. George Barnwell is a hideous representation of the passions, and therefore beneficial.

There are many sublime objects which do not depend upon terror, or at least upon false associations of terror, for their effect; and there are many sublime thoughts, which have no connexion with violent passions or false ideas of morality. These are what we should select, if possible, to raise, without inflating, the imagination. The view of the ocean, of the setting or the rising sun, the great and bold scenes of nature, affect the mind with sublime pleasure. All the objects which suggest ideas of vast space or power, of the infinite duration of time, of the decay of the monuments of ancient grandeur, or of the master-pieces of human art and industry, have power to raise sublime sensations: but we should consider, that they raise this pleasure only by suggesting certain ideas; those who have not the previous ideas will not feel the pleasure. We should not, therefore, expect that children should admire objects which do not excite any ideas in their minds; we should wait till they have acquired the necessary knowledge, and we should not injudiciously familiarize them with these objects.

Simplicity is a source of the sublime, peculiarly suited to children; accuracy of observation and distinctness of perception, are essential to this species of the sublime. In Percy's collection of ancient ballads, and in the modern poems of the Ayreshire ploughman, we may see many instances of the effect of simplicity. To preserve our pupil's taste from a false love of ornament, he must avoid, either in books or conversation, all verbose and turgid descriptions, the use of words and epithets which only fill up the measure of a line.

When a child sees any new object, or feels any new sensation, we should assist him with appropriate words to express his thoughts and feelings: when the impression is fresh in his mind, the association, with the precise descriptive epithets, can be made with most certainty. As soon as a child has acquired a sufficient stock of words and ideas, he should be from time to

time exercised in description; we should encourage him to give an exact account of his own feelings in his own words. Those parents who have been used to elegant, will not, perhaps, be satisfied with the plain descriptions of unpractised pupils; but they should not be fastidious; they should rather be content with an epithet too little, than with an epithet too much; and they should compare the child's description with the objects actually described, and not the poems of Thomson or Gray, or Milton or Shakspeare. If we excite our pupils to copy from the writings of others, they never can have any originality of thought. To show parents what sort of simple descriptions they may reasonably expect from children, we venture to produce the following extempore description of a summer's evening, given by three children of different ages.

July 12th, 1796. Mr. —— was walking out with his family, and he asked his children to describe the evening just as it appeared to them. "There were three bards in Ossian's poems," said he, "who were sent out to see what sort of a night it was; they all gave different descriptions upon their return; you have never any of you read Ossian, but you can give us some description of this evening; try."

B—— (a girl of 14.) "The clouds in the west are bright with the light of the sun which has just set; a thick mist is seen in the east, and the smoke which had been *heaped up* in the daytime, is now spread, and mixes with the mist all round us; the noises are heard more plainly (though there are but few) than in the daytime; and those which are at a distance, sound almost as near as those which are close to us; there is a red mist round the moon."

C—— (a girl of eleven years old.) "The western clouds are pink with the light of the sun which has just set. The moon shines red through the mist. The smoke and mist make it look dark at a distance; but the few objects near us appear plainer. If it were not for the light of the moon, they would not be seen; but the moon is exceedingly bright; it shines upon the house and the windows. Every thing sounds busy at a distance; but what is near us is still."

S—— (a boy between nine and ten years old.) "The sun has set behind the hill, and the western clouds are tinged with light. The mist mixes with the smoke,

which rises from the heaps of weeds which some poor man is burning to earn bread for his family. The moon through the mist peeps her head, and sometimes she *goes back*, retires into her bower of clouds. The few noises that are heard are heard very plain—very plainly."

We should observe, that the children who attempted these little descriptions had not been habituated to the *poetic trade*; these were the only descriptions of an evening which they ever made. It would be hurtful to exercise children frequently in descriptive composition; it would give them the habit of exact observation, it is true, but something more is necessary to the higher species of poetry. Words must be selected which do not represent only, but which suggest, ideas. Minute veracity is essential to some sorts of description; but in a higher style of poetry, only the large features characteristic of the scene must be produced, and all that is subordinate must be suppressed. Sir Joshua Reynolds justly observes, that painters who aim merely at deception of the eye by exact imitation, are not likely, even in their most successful imitations, to rouse the imagination. The man who mistook the painted fly for a real fly, only brushed, or attempted to brush it, away. The exact representation of such a common object, could not raise any sublime ideas in his mind; and when he perceived the deception, the wonder which he felt at the painter's art, was a sensation no way connected with poetic enthusiasm.

As soon as young people have collected a variety of ideas, we can proceed a step in the education of their fancy. We should sometimes in conversation, sometimes in writing or in drawing, show them how a few strokes, or a few words, can suggest or combine various ideas. A single expression from Cæsar charmed a mutinous army to instant submission. Unless the words "*Roman Citizens!*" had suggested more than meets the ear, how could they have produced this wonderful effect? The works of Voltaire and Sterne abound with examples of the skilful use of the language of suggestion: on this the wit of Voltaire, and the humour and pathos of Sterne, securely depend for their success. Thus, corporal Trim's eloquence on the death of his young master, owed its effect upon the whole kitchen, including "the fat scullion, who was scouring a fishkettle upon

her knees," to the well-timed use of the mixed language of action and suggestion.

"'Are we not here now?' continued the corporal (striking the end of his stick perpendicularly upon the floor, so as to give an idea of health and stability), 'and are we not' (dropping his hat upon the ground) 'gone in a moment?'"

"Are we not here now and gone in a moment?" continues Sterne, who, in this instance, reveals the secret of his own art. "There was nothing in the sentence; it was one of your self-evident truths we have the advantage of hearing every day: and if Trim had not trusted more to his hat than his head, he had made nothing at all of it."

When we point out to our pupils such examples in Sterne, we hope it will not be understood that we point them out to induce servile imitation. We apprehend that the imitators of Sterne have failed from not having discovered that the interjections and —— dashes of this author are not in themselves beauties, but that they affect us by suggesting ideas. To prevent any young writers from the intemperate or absurd use of interjections, we should show them Mr. Horne Tooke's acute remarks upon this mode of embellishment. We do not, however, entirely agree with this author in his abhorrence of interjections. We do not believe that "where speech can be employed they are totally useless; and are always insufficient for the purpose of communicating our thoughts."* Even if we class them, as Mr. Tooke himself does,† among "involuntary convulsions with oral sound," such as groaning, shrieking, &c., yet they may suggest ideas, as well as express animal feelings. Sighing, according to Mr. Tooke, is in the class of interjections, yet the poet acknowledges the superior eloquence of sighs:

"Persuasive words, and *more persuasive* sighs."

"'I wish,' said Uncle Toby, with a deep sigh (after hearing the story of Le Fevre), 'I wish, Trim, I was asleep.'" The sigh here adds great force to the wish, and it does not mark that Uncle Toby, from vehemence of passion, had returned to the brutal state of a savage who has not learned the use of speech; but, on the con-

* See Epea Pteroentra, p. 88. † Chapter on Grammar.

trary, it suggests to the reader that Uncle Toby was a man of civilized humanity; not one whose compassion was to be excited merely as an animal feeling by the actual *sight* of a fellow-creature in pain, but rather by the description of the sufferer's situation.

In painting, as well as in writing, the language of suggestion affects the mind; and if any of our pupils should wish to excel in this art, they must early attend to this principle. The picture of Agamemnon hiding his face at the sacrifice of his daughter, expresses little to the eye, but much to the imagination. The usual signs of grief and joy make but slight impression; to laugh and to weep are such common expressions of delight or anguish, that they cannot be mistaken, even by the illiterate; but the imagination must be cultivated to enlarge the sphere of sympathy, and to render a more refined language intelligible. It is said that a Milanese artist painted two peasants and two country girls, who laughed so heartily, that *no one* could look at them without laughing.* This is an instance of sympathy unconnected with imagination. The following is an instance of sympathy excited by imagination. When Portia was to part from Brutus, just before the breaking out of the civil war, "she endeavoured," says Plutarch, "as well as possible, to conceal the sorrow that oppressed her; but, notwithstanding her magnanimity, a picture betrayed her distress. The subject was the parting of Hector and Andromache. He was represented delivering his son Astyanax into her arms, and the eyes of Andromache were fixed upon him. The resemblance that this picture bore to her own distress, made *Portia* burst into tears the moment she beheld it." If Portia had never read Homer, Andromache would not have had this power over her imagination and her sympathy.

The imagination not only heightens the power of sympathy with the emotions of all the passions which a painter would excite, but it is likewise essential to our taste for another class of pleasures. Artists who, like Hogarth, would please by humour, wit, and ridicule, must depend upon the imagination of the spectators to supply all the intermediate ideas which they would suggest. The cobweb over the poor box, one of the happiest strokes of satire that Hogarth ever invented, would

* See Camper's Works, p. 126.

probably say nothing to the inattentive eye, or the dull imagination. A young person must acquire the language, before he can understand the ideas of superior minds.

The taste for poetry must be prepared by the culture of the imagination. The united powers of music and poetry could not have triumphed over Alexander, unless his imagination had assisted "the mighty master."

> "With downcast looks the joyless victor sat,
> Revolving in his altered soul
> The various turns of chance below;
> And now and then a sigh he stole,
> And tears began to flow."

The sigh and the tears were the consequences of Alexander's own thoughts, which were only recalled by kindred sounds. We are well aware that savage nations, or those that are imperfectly civilized, are subject to enthusiasm; but we are inclined to think that the barbarous clamour with which they proclaim their delight in music and poetry, may deceive us as to the degree in which it is felt: the sensations of cultivated minds may be more exquisite, though they are felt in silence. It has been supposed that ignorance is extremely susceptible of the pleasures of wonder; but wonder and admiration are different feelings: the admiration which a cultivated mind feels for excellence of which it can fully judge, is surely a higher species of pleasure than the brute wonder expressed by "a foolish face of praise." Madame Roland tells us that once, at a sermon preached by a celebrated Frenchman, she was struck with the earnest attention painted in the countenance of a young woman who was looking up at the preacher. At length the fair enthusiast exclaimed, "My God, how he perspires!" A different sort of admiration was felt by Cæsar, when the scroll dropped from his hand while he listened to an oration of Cicero.

There are an infinite variety of associations by which the orator has power to rouse the imagination of a person of cultivated understanding; there are comparatively few, by which he can amuse the fancy of illiterate auditors. It is not that they have less imagination than others; they have equally the power of raising vivid images; but there are few images which can be recalled to them: the combinations of their ideas are confined to a small number, and words have no poetic or literary

associations in their minds: even among children, this difference between the power we have over the cultivated and uncultivated mind, early appears. A laurel is to the eye of an illiterate boy nothing more than a shrub with a shining, pale-green, pointed leaf: recall the idea of that shrub by the most exact description, it will affect him with no peculiar pleasure; but associate early in a boy's mind the ideas of glory, of poetry, of olympic crowns, of Daphne and Apollo; by some of these latent associations the orator may afterward raise his enthusiasm. We shall not here repeat what has been said* upon the choice of literature for young people, but shall once more warn parents to let their pupils read only the best authors, if they wish them to have a fine imagination or a delicate taste. When their minds are awake and warm, show them excellence; let them hear oratory only when they can feel it; if the impression be vivid, no matter how transient the touch. Ideas which have once struck the imagination, can be recalled by the magic of a word, with all their original, all their associated force. Do not fatigue the eye and ear of your vivacious pupil with the monotonous sounds and confused images of vulgar poetry. Do not make him repeat the finest passages of Shakspeare and Milton: the effect is lost by repetition; the words, the ideas are profaned. Let your pupils hear eloquence from eloquent lips, and they will own its power. But let a drawling, unimpassioned reader, read a play of Shakspeare, or an oration of Demosthenes, and if your pupil is not out of patience, he will never taste the charms of eloquence. If he feels a fine sentiment, or a sublime idea, pause, leave his mind full, leave his imagination elevated. Five minutes afterward, perhaps, your pupil's attention is turned to something else, and the sublime idea seems to be forgotten: but do not fear; the idea is not obliterated; it is latent in his memory; it will appear at a proper time, perhaps a month, perhaps twenty years afterward. Ideas may remain long useless and almost forgotten in the mind, and may be called forth by some corresponding association from their torpid state.

Young people who wish to make themselves orators or eloquent writers, should acquire the habit of attending first to the general impression made upon their own

* See Chapter on Books.

minds by oratory, and afterward to the cause which produced the effect; hence they will obtain command over the minds of others, by using the knowledge they have acquired of their own. The habit of considering every new idea, or new fact, as a subject for allusion, may also be useful to the young orator. A change, from time to time in the nature of his studies, will enlarge and invigorate his imagination. Gibbon says, that, after the publication of his first volume of the Roman history, he gave himself a short holyday. "I indulged my curiosity in some studies of a very different nature: a course of anatomy, which was demonstrated by Dr. Hunter, and some lessons of chymistry, which were delivered by Dr. Higgins. The principles of these sciences, and a taste for books of natural history, contributed to multiply my ideas and images; and the anatomist and chymist may sometimes track me in their own snow."

Different degrees of enthusiasm are requisite in different professions; but we are inclined to think, that the imagination might with advantage be cultivated to a much higher degree than is commonly allowed in young men intended for public advocates. We have seen several examples of the advantage of a general taste for the belles lettres in eminent lawyers;* and we have lately seen an ingenious treatise called Deinology, or instructions for a Young Barrister, which confirms our opinion upon this subject. An orator, by the judicious preparation of the minds of his audience, may increase the effect of his best arguments. A Grecian painter,† before he would produce a picture which he had finished, representing a martial enterprise, ordered martial music to be played, to raise the enthusiasm of the assembled spectators; when their imagination was sufficiently elevated, he uncovered the picture, and it was beheld with sympathetic transports of applause.

It is usually thought that persons of extraordinary imagination are deficient in judgment: by proper education, this evil might be prevented. We may observe that persons who have acquired particular facility in certain exercises of the imagination, can, by voluntary exertion, either excite or suppress certain trains of ideas on which their enthusiasm depends. An actor, who storms and raves while he is upon the stage, ap-

* Lord Mansfield, Hussey Burgh, &c. † Theon.

pears with a mild and peaceable demeanour a moment afterward behind the scenes. A poet, in his inspired moments, repeats his own verses in his garret with all the emphasis and fervour of enthusiasm; but when he comes down to dine with a mixed convivial company, his poetic fury subsides, and a new train of ideas takes place in his imagination. As long as he has sufficient command over himself to lay aside his enthusiasm in company he is considered as a reasonable, sensible man, and the more imagination he displays in his poems, the better. The same exercise of fancy, which we admire in one case, we ridicule in another. The enthusiasm which characterizes the man of genius, borders upon insanity.

When Voltaire was teaching Mademoiselle Claron, the celebrated actress, to perform an impassioned part in one of his tragedies, she objected to the violence of his enthusiasm. "Mais, monsieur, on me prendroit pour une possédée!"* "Eh, mademoiselle," replied the philosophic bard, "il faut être un possédé pour réussir en aucun art."

The degree of enthusiasm which makes the painter and poet set, what to more idle or more busy mortals, appears an imaginary value upon their respective arts, supports the artist under the pressure of disappointment and neglect, stimulates his exertions, and renders him almost insensible to labour and fatigue. Military heroes, or those who are "*insane with ambition*,"† endure all the real miseries of life, and brave the terrors of death, under the invigorating influence of an extravagant imagination. Cure them of their enthusiasm, and they are no longer heroes. We must, therefore, decide in education, what species of characters we would produce, before we can determine what degree or what habits of imagination are desirable.

"Je suis le Dieu de la danse!"‡ exclaimed Vestris; and probably Alexander the Great did not feel more pride in his apotheosis. Had any cynical philosopher undertaken to cure Vestris of his vanity, it would not have been a charitable action. Vestris might, perhaps, by force of reasoning, have been brought to acknowledge

* "But, sir, I shall be taken for one possessed!"—"Well, ma'am you must be *like one possessed*, if you would succeed in any art."

† Dr. Darwin.

‡ "I am the god of dancing!"

that a dancing-master was not a divinity, but this conviction would not have increased his felicity; on the contrary, he would have become wretched in proportion as he became rational. The felicity of enthusiasts depends upon their being absolutely incapable of reasoning, or of listening to reason, upon certain subjects; provided they are resolute in repeating their own train of thoughts without comparing them with that of others, they may defy the malice of wisdom, and in happy ignorance may enjoy perpetual delirium.

Parents who value the happiness of their children, will consider exactly what chance there is of their enjoying unmolested any partial enthusiasm; they will consider, that by early excitations, it is very easy to raise any species of ambition in the minds of their pupils. The various species of enthusiasm necessary to make a poet, a painter, an orator, or a military hero, may be inspired, without doubt, by education. How far these are connected with happiness, is another question. Whatever be the object which he pursues, we must, as much as possible, ensure our pupil's success. Those who have been excited to exertion by enthusiasm, if they do not obtain the reward or admiration which they had been taught to expect, sink into helpless despondency. Whether their object has been great or small, if it has been their favourite object, and they fail of its attainment, their mortification and subsequent languor are unavoidable. The wisest of monarchs exclaimed, that all was vanity and vexation of spirit: he did not, perhaps, feel more weary of the world than the poor juggler felt, who, after educating his hands to the astonishing dexterity of throwing up into the air, and catching as they fell, six eggs successively, without breaking them, received from the emperor before whom he performed, six eggs, to reward the labour of his life!

This poor man's ambition appears obviously absurd; and we are under no immediate apprehension, that parents should inspire their children with the enthusiasm necessary to the profession of a juggler: but, unless some precautions are taken, the objects which excite the ambition of numbers, may be placed so as to deceive the eye and imagination of children; and they may labour through life in pursuit of phantoms. If children early hear their parents express violent admiration for riches, rank, power, or fame, they catch a species of en-

thusiasm for these things, before they can estimate justly their value; from the countenance and manner, they draw very important conclusions. "Felicity is painted on your countenance," is a polite phrase of salutation in China. The taste for looking happy is not confined to the Chinese: the rich and great,* by every artifice of luxury, endeavour to impress the spectator with the idea of their superior felicity. From experience we know, that the external signs of delight are not always sincere, and that the apparatus of luxury is not necessary to happiness. Children who live with persons of good sense, learn to separate the ideas of happiness and a coach and six; but young people who see their fathers, mothers, and preceptors, all smitten with sudden admiration at the sight of a phaeton or a fine gentleman, are immediately infected with the same absurd enthusiasm. These parents do not suspect that they are perverting the imagination of their children, when they call them with foolish eagerness to the window to look at a fine equipage, a splendid cavalcade, or a military procession; they perhaps summon a boy who is intended for a merchant or a lawyer, to hear "the spirit-stirring drum;" and they are afterward surprised, if he says, when he is fifteen or sixteen, that, "*if his father pleases*, he had rather go into the army than go to the bar." The mother is alarmed, perhaps, about the same time, by an unaccountable predilection in her daughter's fancy for a red coat, and totally forgets having called the child to the window to look at the smart cockades, and to hear the tune of "See, the conquering hero comes."

"Hear you me, Jessica," says Shylock to his daughter, "lock up my doors; and when you hear the drum, and the vile squeaking of the wry-necked fife, clamber not you up into the casements then."

Shylock's exhortations were vain; Jessica had arrived at years of discretion, and it was too late to forbid her clambering into the casements; the precautions should have been taken sooner; the epithets vile, squeaking, and wry-necked fife, could not alter the lady's taste; and Shylock should have known how peremptory prohibitions and exaggerated expressions of aversion operate upon the female imagination; he was imprudent in the extreme of his caution. We should let

* See Smith's Moral Theory.

children see things as they really are, and we should not prejudice them either by our exclamations of rapture, or by our affected disgust. If they are familiarized with show, they will not be caught by it; if they see the whole of whatever is to be seen, their imagination will not paint things more delightful than they really are. For these reasons, we think that young people should not be restrained, though they may be guided in their tastes; we should supply them with all the information in which they are deficient, and leave them to form their own judgments.

Without making it a matter of favour, or of extraordinary consequence, parents can take their children to see public exhibitions, or to partake of any amusements which are really agreeable; they can, at the same time, avoid mixing factitious with real pleasure. If, for instance, we have an opportunity of taking a boy to a good play, or a girl to a ball, let them enjoy the full pleasure of the amusement, but do not let us excite their imagination by great preparations, or by anticipating remarks: "Oh, you'll be very happy to-morrow, for you're to go to the play. You must look well to-night, for you are going to the ball. Were you never at a ball? Did you never see a play before? Oh, *then*, you'll be delighted, I'm sure!" The children often look much more sensible, and sometimes more composed, in the midst of these foolish exclamations, than their parents. "Est ce que je m'amuse, maman?" said a little girl of six years old, the first time she was taken to the playhouse.

Besides the influence of opinion, there are a number of other circumstances to be considered in cultivating the imagination; there are many other circumstances which must be attended to, and different precautions are necessary, to regulate properly the imagination of children of different dispositions or temperaments. The disposition to associate ideas, varies in strength and quickness in opposite temperaments: the natural vivacity or dulness of the senses, the habit of observing external objects, the power of voluntary exertion, and the propensity to revery, must all be considered before we can adapt a plan of education exactly to the pupil's advantage. A wise preceptor will counteract, as much as possible, all those defects to which a child may appear most liable, and will cultivate his imagination so as to

prevent the errors to which he is most exposed by natural, or what we call natural, disposition.

Some children appear to feel sensations of pleasure or pain with more energy than others; they take more delight in feeling than in reflection; they have neither much leisure nor much inclination for the intellectual exertions of comparison and deliberation. Great care should be taken to encourage children of this temper to describe and to compare their sensations. By their descriptions we shall judge what motives we ought to employ to govern them, and if we can teach them to compare their feelings, we shall induce that voluntary exertion of mind in which they are naturally defective. We cannot compare or judge of our sensations without voluntary exertion. When we deliberate, we repeat our ideas deliberately; and this is an exercise peculiarly useful to those who feel quickly.

When any pleasure makes too great an impression upon these children of vivid sensations, we should repeat the pleasure frequently till it begins to fatigue; or we should contrast it, and bring it into direct comparison with some other species of pleasure. For instance, suppose a boy had appeared highly delighted with seeing a game at cards, and that we were apprehensive he might, from this early association, acquire a taste for gaming, we might either repeat the amusement till the playing of cards began to weary the boy, or we might take him immediately after playing at cards to an interesting comedy; probably the amusement he would receive at the playhouse would be greater than that which he had enjoyed at the card-table; and as these two species of pleasure would immediately succeed to each other, the child could scarcely avoid comparing them. Is it necessary to repeat, that all this should be done without any artifice? The child should know the meaning of our conduct, and then he will never set himself in opposition to our management.

If it is not convenient or possible to dull the charm of novelty by repetition, or to contrast a new pleasure with some other superior amusement, there is another expedient which may be useful; we may call the power of association to our assistance; this power is sometimes a full match for the most lively sensations. For instance, suppose a boy of strong feelings had been offended by some trifle, and expressed sensations of

hatred against the offender obviously too violent for the occasion; to bring the angry boy's imagination to a temperate state, we might recall some circumstance of his former affection for the offender; or the general idea, that it is amiable and noble to command our passion, and to forgive those who have injured us. At the sight of his mother, with whom he had many agreeable associations, the imagination of Coriolanus raised up instantly a train of ideas connected with the love of his family and of his country, and immediately the violence of his sensations of anger was subdued.

Brutus, after his friend Cassius has apologized to him for his "rash humour," by saying, "that it was hereditary from his mother," promises that the next time Cassius is over-earnest with "his Brutus, he will think his mother chides, and leave him so;" that is to say, Brutus promises to recollect an association of ideas, which shall enable him to bear with his friend's ill-humour.

Children who associate ideas very strongly and with rapidity,* must be educated with continual attention. With children of this class, the slightest circumstances are of consequence; they may at first appear to be easily managed, because they will remember pertinaciously any reproof, any reward or punishment; and, from association, they will scrupulously avoid or follow what has, in any one instance, been joined with pain or pleasure in their imagination: but, unfortunately, accidental events will influence them, as well as the rewards and punishments of their preceptors; and a variety of associations will be formed, which may secretly govern them long before their existence is suspected. We shall be surprised to find, that even where there is apparently no hope, or fear, or passion, to disturb their judgment, they cannot reason, or understand reasoning. On studying them more closely, we shall discover the cause of this seeming imbecility. A multitude of associated ideas occur to them upon whatever subject we attempt to reason, which distract their attention, and make them change the terms of every proposition with incessant variety. Their pleasures are chiefly secondary reflected pleasures, and they do not judge by their actual sensations so much as by their associations.

* Temperament of increased association.—ZOONOMIA.

They like and dislike without being able to assign any sufficient cause for their preference or aversion. They make a choice frequently without appearing to deliberate; and if you, by persuading them to a more detailed examination of the objects, convince them, that according to the common standard of good and evil, they have made a foolish choice, they will still seem puzzled and uncertain; and, if you leave them at liberty, will persist in their original determination. By this criterion we may decide, that they are influenced by some secret false association of ideas; and, instead of arguing with them upon the obvious folly of their present choice, we should endeavour to make them trace back their ideas, and discover the association by which they are governed. In some cases this may be out of their power, because the original association may have been totally forgotten, and yet those connected with it may continue to act: but even when we cannot succeed in any particular instance in detecting the cause of the error, we shall do the pupils material service by exciting them to observe their own minds. A tutor who carefully remarks the circumstances in which a child expresses uncommon grief or joy, hope or fear, may obtain complete knowledge of his associations, and may accurately distinguish the proximate and remote causes of all his pupil's desires and aversions. He will then have absolute command over the child's mind, and he should upon no account trust his pupil to the direction of any other person. Another tutor, though perhaps of equal ability, could not be equally secure of success; the child would probably be suspected of cunning, caprice, or obstinacy, because the causes of his tastes and judgments could not be discovered by his new preceptor.

It often happens that those who feel pleasure and pain most strongly, are likewise most disposed to form strong associations of ideas.* Children of this character are never stupid, but often prejudiced and passionate: they can readily assign a reason for their preference or aversion; they recollect distinctly the original sensations of pleasure or pain, on which their associations depend; they do not, like Mr. Transfer in Zeluco, like or dislike persons and things because they

* See Zoonomia. Temperament of increased sensibility and association joined.

have *been used to them*, but because they have received some injury or benefit from them. Such children are apt to make great mistakes in reasoning, from their registering of coincidences hastily; they do not wait to repeat their experiments; but if they have in one instance observed two things to happen at the same time, they expect that they will always recur together. If one event precedes or follows another accidentally, they believe it to be the cause or effect of its concomitant, and this belief is not to be shaken in their minds by ridicule or argument. They are, consequently, inclined both to superstition and enthusiasm, according as their hopes and fears predominate. They are likewise subject to absurd antipathies—antipathies which verge towards insanity.

Dr. Darwin relates a strong instance of antipathy in a child from association. The child, on tasting the gristle of sturgeon, asked what gristle was? and was answered, that gristle was like the division of a man's nose. The child, disgusted at this idea, for twenty years afterward could never be persuaded to taste sturgeon.*

Zimmermann assures us that he was an eyewitness of a singular antipathy, which we may be permitted to describe in his own words:—

"Happening to be in company with some English gentlemen, all of them men of distinction, the conversation fell upon antipathies. Many of the company denied their reality, and considered them as idle stories; but I assured them that they were truly a disease. Mr. William Matthews, son to the governor of Barbadoes, was of my opinion, because he himself had an antipathy to spiders. The rest of the company laughed at him. I undertook to prove to them that this antipathy *was really an impression on his soul, resulting from the determination of a mechanical effect.* (We do not pretend to know what Dr. Zimmermann means by this.) Lord John Murray undertook to shape some black wax into the appearance of a spider, with a view to observe whether the antipathy would take place at the simple figure of the insect. He then withdrew for a moment, and came in again with the wax in his hand, which he kept shut. Mr. Matthews, who in other respects

* Zoonomia, vol. ii.

was a very amiable and moderate man, immediately conceiving that his friend really had a spider in his hand, clapped his hand to his sword with extreme fury, and running back towards the partition, cried out most horribly. All the muscles of his face were swelled, his eyes were rolling in their sockets, and his body was immoveable. We were all exceedingly alarmed, and immediately ran to his assistance, took his sword from him, and assured him that what he conceived to be a spider was nothing more than a bit of wax, which he might see upon the table.

"He remained some time in this spasmodic state; but at length he began to recover, and to deplore the horrible passion from which he still suffered. His pulse was very strong and quick, and his whole body was covered with a cold perspiration. After taking an anodyne draught, he resumed his usual tranquillity.

"We are not to wonder at this antipathy," continues Zimmermann; "the spiders at Barbadoes are very large, and of a hideous figure. Mr. Matthews was born there, and his antipathy was therefore to be accounted for. Some of the company undertook to make a little waxen spider in his presence. He saw this done with great tranquillity, but he could not be persuaded to touch it, though he was by no means a timorous man in other respects. Nor would he follow my advice to endeavour to conquer this antipathy by first drawing parts of spiders of different sorts, and after a time whole spiders, till at length he might be able to look at portions of real spiders, and thus gradually accustom himself to whole ones, at first dead, and then living ones."*

Dr. Zimmermann's method of cure appears rather more ingenious than his way of accounting for the disease. Are all the natives of Barbadoes subject to convulsions at the sight of the large spiders in that island? or why does Mr. William Matthews' having been born there account so satisfactorily for his antipathy?

The cure of these unreasonable fears of harmless animals, like all other antipathies, would, perhaps, be easily effected, if it were judiciously attempted early in life. The epithets which we use in speaking of animals, and our expressions of countenance, have great influence on

* Monthly Review of Zimmermann on Experience in Physic, March, 1783, page 211.

the minds of children. If we, as Dr. Darwin advises, call the spider *the ingenious spider*, and the frog *the harmless frog*, and if we look at them with complacency, instead of aversion, children, from sympathy, will imitate our manner, and from curiosity will attend to the animals, to discover whether the commendatory epithets we bestow upon them are just.

It is comparatively of little consequence to conquer antipathies which have trifling objects. An individual can go through life very well without eating sturgeon, or touching spiders; but when we consider the influence of the same disposition to associate false ideas too strongly in more important instances, we shall perceive the necessity of correcting it by education.

Locke tells us of a young man, who, having been accustomed to see an old trunk in the room with him when he learned to dance, associated his dancing exertions so strongly with the sight of this trunk, that he could not succeed by any voluntary efforts in its absence. We have, in our remarks upon attention,* pointed out the great inconveniences to which those are exposed who acquire associated habits of intellectual exertion; who cannot speak, or write, or think, without certain habitual aids to their memory or imagination. We must farther observe, that incessant vigilance is necessary in the moral education of children disposed to form strong associations; they are liable to sudden and absurd dislikes or predilections, with respect to persons as well as things; they are subject to caprice in their affections and temper, and liable to a variety of mental infirmities, which, in different degrees, we call passion or madness. Locke tells us that he knew a man who, after having been restored to health by a painful operation, had so strongly associated the idea and figure of the operator with the agony he had endured, that though he acknowledged the obligation, and felt gratitude towards this friend who had saved him, he never afterward could bear to see his benefactor. There are some people who associate so readily and incorrigibly the idea of any pain or insult they have received from another, with his person and character, that they can never afterward forget or forgive. They are hence disposed to all the intemperance of hatred and

* See Chapter on Attention.

revenge ; to the chronic malice of an Iago, or the acute pangs of an Achilles. Homer, in his speech of Achilles to Agamemnon's mediating ambassadors, has drawn a strong and natural picture of the progress of anger. It is worth studying as a lesson in metaphysics. Whenever association suggests to the mind of Achilles the injury he has received, he loses his reason, and the orator works himself up from argument to declamation, and from declamation to desperate resolution, through a close-linked connexion of ideas and sensations.

The insanities of ambition, avarice, and vanity, originate in early mistaken associations. A feather, or a crown, or an alderman's chain, or a cardinal's hat, or a purse of yellow counters, is unluckily associated in the minds of some men with the idea of happiness, and, without staying to deliberate, these unfortunate persons hunt through life the phantasms of a disordered imagination. While we pity, we are amused by the blindness and blunders of those whose mistakes can affect no one's felicity but their own ; but any delusions which prompt their victims to actions inimical to their fellow-creatures, are the objects not unusually of pity, but of indignation, of private aversion and public punishment. We smile at the avaricious insanity of the miser, who dresses himself in the cast-off wig of a beggar, and pulls a crushed pancake from his pocket for his own and for his friend's dinner.* We smile at the insane vanity of the pauper, who dressed himself in a many-coloured paper star, assumed the title of Duke of Baubleshire, and as such required homage from every passenger.† But are we inclined to smile at the outrageous vanity of the man who styled himself the son of Jupiter, and who murdered his best friend for refusing him divine honours ? Are we disposed to pity the slave-merchant, who, urged by the maniacal desire for gold, hears unmoved the groans of his fellow-creatures, the execrations of mankind, and that "small still voice," which haunts those who are stained with blood ?

The moral insanities which strike us with horror, compassion, or ridicule, however they may differ in their effects, have frequently one common origin; an early false association of ideas. Persons who mistake in

* Elwes. See his Life.

† There is an account of this poor man's death in the Star, 1796.

measuring their own feelings, or who neglect to compare their ideas, and to balance contending wishes, scarcely merit the name of *rational* creatures. The man who does not deliberate, is lost.

We have endeavoured, though well aware of the difficulty of the subject, to point out some of the precautions that should be used in governing the imagination of young people of different dispositions. We should add, that in all cases the pupil's attention to his own mind will be of more consequence than the utmost vigilance of the most able preceptor; the sooner he is made acquainted with his own character, and the sooner he can be excited to govern himself by reason, or to attempt the cure of his own defects, the better.

There is one habit of the imagination to which we have not yet adverted; the habit of revery. In revery we are so intent upon a particular train of ideas, that we are unconscious of all external objects, and we exert but little voluntary power. It is true that some persons in castle-building both reason and invent, and therefore must exert some degree of volition; even in the wildest revery, there may be traced some species of consistency, some connexion among the ideas; but this is simply the result of the association of ideas. Intentive castle-builders are rather nearer the state of insanity than of revery; they reason well upon false principles; their airy fabrics are often both in good taste and in good proportion; nothing is wanting to them but a foundation. On the contrary, nothing can be more silly than the reveries of silly people; they are not only defective in consistency, but they want all the unities; they are not extravagant, but they are stupid; they consist usually of a listless reiteration of uninteresting ideas; the whole pleasure enjoyed by those addicted to them, consists in the facility of repetition.

It is a mistaken notion, that only people of ardent imaginations are disposed to revery; the most indolent and stupid persons waste their existence in this indulgence; they do not act always in consequence of their dreams, therefore we do not detect their folly. Young people of active minds, when they have not sufficient occupation, necessarily indulge in revery; and, by degrees, this wild exercise of their invention and imagination becomes so delightful to them, that they prefer it to all sober employments.

Mr. Williams, in his Lectures upon Education, gives an account of a boy singularly addicted to revery. The desire of invisibility had seized his mind, and for several years he had indulged his fancy with imagining all the pleasures that he should command, and all the feats that he could perform, if he were in possession of Gyges's ring. The reader should, however, be informed, that this castle-builder was not a youth of strict veracity; his confession upon this occasion, as upon others, might not have been sincere. We only state the story from Mr. Williams.

To prevent children from acquiring a taste for revery, let them have various occupations both of mind and body. Let us not direct their imagination to extraordinary future pleasures, but let us suffer them to enjoy the present. Anticipation is a species of revery; and children who have promises of future pleasures frequently made to them, live in a continual state of anticipation.

To cure the habit of revery when it has once been formed, we must take different methods with different tempers. With those who indulge in the *stupid revery*, we should employ strong excitations, and present to the senses a rapid succession of objects, which will completely engage without fatiguing them. This mode must not be followed with children of different dispositions, else we should increase, instead of curing, the disease. The most likely method to break this habit in children of great quickness or sensibility, is to set them to some employment which is wholly new to them, and which will consequently exercise and exhaust all their faculties, so that they shall have no life left for castle-building. Monotonous occupations, such as copying, drawing, or writing, playing on the harpsichord, &c., are not, *if habit has made them easy* to the pupil, fit for our purpose. We may all perceive, that in such occupations the powers of the mind are left unexercised. We can frequently read aloud with tolerable emphasis for a considerable time together, and at the same time think upon some subject foreign to the book we hold in our hands.

The most difficult exercises of the mind, such as invention, or strict reasoning, are those alone which are sufficient to subjugate and chain down the imagination of some active spirits. To such laborious exercises

they should be excited by the encouraging voice of praise and affection. Imaginative children will be more disposed to invent than to reason, but they cannot perfect any invention without reasoning; there will, therefore, be a mixture of what they like and dislike in the exercise of invention, and the habit of reasoning will, perhaps, gradually become agreeable to them, if it be thus dexterously united with the pleasures of the imagination.

So much has already been written by various authors upon the pleasures and the dangers of imagination, that we could scarcely hope to add any thing new to what they have produced: but we have endeavoured to arrange the observations which appeared most applicable to practical education; we have pointed out how the principles of taste may be early taught without injury to the general understanding, and how the imagination should be prepared for the higher pleasures of eloquence and poetry. We have attempted to define the boundaries between the enthusiasm of genius and its extravagance; and to show some of the precautions which may be used to prevent the moral defects to which persons of ardent imagination are usually subject. The degree in which the imagination should be cultivated must, we have observed, be determined by the views which parents may have for their children, by their situation in society, and by the professions for which they are destined. Under the government of a sober judgment, the powers of the imagination must be advantageous in every situation; but their value to society, and to the individuals by whom they are possessed, depends ultimately upon the manner in which they are managed. A magician, under the control of a philosopher, would perform not only great, but useful wonders. The homely proverb which has been applied to fire, may with equal truth be applied to imagination: "It is a good servant, but a bad master."

CHAPTER XXIII.

ON WIT AND JUDGMENT.

It has been shown that the powers of memory, invention, and imagination, ought to be rendered subservient to judgment: it has been shown that reasoning and judgment abridge the labours of memory, and are necessary to regulate the highest flights of imagination. We shall consider the power of reasoning in another view, as being essential to our conduct in life. The object of reasoning is to adapt means to an end, to attain the command of effects by the discovery of the causes on which they depend.

Until children have acquired some knowledge of effects, they cannot inquire into causes. Observation must precede reasoning; and as judgment is nothing more than the perception of the result of comparison, we should never urge our pupils to judge until they have acquired some portion of experience.

To teach children to compare objects exactly, we should place the things to be examined distinctly before them. Every thing that is superfluous should be taken away, and a sufficient motive should be given to excite the pupil's attention. We need not here repeat the advice that has formerly been given* respecting the choice of proper motives to excite and fix attention; or the precautions necessary to prevent the pain of fatigue, and of unsuccessful application. If comparison be early rendered a task to children, they will dislike and avoid this exercise of the mind, and they will consequently show an inaptitude to reason: if comparing objects be made interesting and amusing to our pupils, they will soon become expert in discovering resemblances and differences; and thus they will be prepared for reasoning.

Rousseau has judiciously advised, that *the senses* of children should be cultivated with the utmost care. In proportion to the distinctness of their perceptions, will be the accuracy of their memory, and, probably, also the

* See Chapter on Attention.

precision of their judgment. A child who sees imperfectly, cannot reason justly about the objects of sight, because he has not sufficient data. A child who does not hear distinctly, cannot judge well of sounds; and if we could suppose the sense of touch to be twice as accurate in one child as in another, we might conclude that the judgment of these children must differ in a similar proportion. The defects in organization are not within the power of the preceptor; but we may observe, that inattention, and want of exercise, are frequently the causes of what appear to be natural defects; and, on the contrary, increased attention and cultivation sometimes produce that quickness of eye and ear, and that consequent readiness of judgment, which we are apt to attribute to natural superiority of organization or capacity. Even among children, we may early observe a considerable difference between the quickness of their senses and of their reasoning upon subjects where they have had experience, and upon those on which they have not been exercised.

The first exercises for the judgment of children should, as Rousseau recommends, relate to visible and tangible substances. Let them compare the size and shape of different objects; let them frequently try what they can lift; what they can reach; at what distance they can see objects; at what distance they can hear sounds: by these exercises they will learn to judge of distances and weight; and they may learn to judge of the solid contents of bodies of different shapes, by comparing the observations of their sense of feeling and of sight. The measure of hollow bodies can be easily taken by pouring liquids into them, and then comparing the quantities of the liquids that fill vessels of different shapes. This is a very simple method of exercising the judgment of children; and, if they are allowed to try these little experiments for themselves, the amusement will fix the facts in their memory, and will associate pleasure with the habits of comparison. Rousseau rewards Emilius with cakes when he judges rightly; success, we think, is a better reward. Rousseau was himself childishly fond of cakes and cream.

The step which immediately follows comparison, is deduction. The cat is larger than the kitten; then a hole through which the cat can go must be larger than a hole through which the kitten can go. Long before a

child can put this reasoning into words, he is capable of forming the conclusion, and we need not be in haste to make him announce it in mode and figure. We may see by the various methods which young children employ to reach what is above them, to drag, to push, to lift different bodies, that they reason; that is to say, that they adapt means to an end, before they can explain their own designs in words. Look at a child building a house of cards; he dexterously balances every card as he floors the edifice; he raises story over story, and shows us that he has some design in view, though he would be utterly incapable of describing his intentions previously in words. We have formerly* endeavoured to show how the vocabulary of our pupils may be gradually enlarged, exactly in proportion to their real knowledge. A great deal depends upon our attention to this proportion; if children have not a sufficient number of words to make their thoughts intelligible, we cannot assist them to reason by our conversation, we cannot communicate to them the result of our experience; they will have a great deal of useless labour in comparing objects, because they will not be able to understand the evidence of others, as they do not understand their language; and at last, the reasonings which they carry on in their own minds will be confused, for want of signs to keep them distinct. On the contrary, if their vocabulary exceed their ideas, if they are taught a variety of words to which they connect no accurate meaning, it is impossible that they should express their thoughts with precision. As this is one of the most common errors in education, we shall dwell upon it more particularly.

We have pointed out the mischief which is done to the understanding of children by the nonsensical conversation of common acquaintance.† "Should you like to be a king? What are you to be? Are you to be a bishop or a judge? Had you rather be a general or an admiral, my little dear?" are some of the questions which every one has probably heard proposed to children of five or six years old. Children who have not learned by rote the expected answers to such interrogatories, stand in amazed silence upon these occasions; or else answer at random, having no possible means of forming any judgment upon such subjects. We have

* See Tasks. † Chapter on Acquaintance.

often thought, in listening to the conversations of grown-up people with children, that the children reasoned infinitely better than their opponents. People who are not interested in the education of children, do not care what arguments they use, what absurdities they utter, in talking to them; they usually talk to them of things which are totally above their comprehension; and they instil error and prejudice, without the smallest degree of compunction; indeed, without in the least knowing what they are about. We earnestly repeat our advice to parents, to keep their children as much as possible from such conversation: children will never reason if they are allowed to hear or to talk nonsense.

When we say that children should not be suffered to talk nonsense, we should observe, that unless they have been in the habit of hearing foolish conversation, they very seldom talk nonsense. They may express themselves in a manner which we do not understand, or they may make mistakes from not accurately comprehending the words of others; but in these cases, we should not reprove or silence them; we should patiently endeavour to find out their hidden meaning. If we rebuke or ridicule them, we shall intimidate them, and either lessen their confidence in themselves or in us. In the one case, we prevent them from thinking; in the other, we deter them from communicating their thoughts; and thus we preclude ourselves from the possibility of assisting them in reasoning. To show parents the nature of the mistakes which children make from their imperfect knowledge of words, we shall give a few examples from real life.

S——, at five years old, when he heard some one speak of *bay* horses, said he supposed that the bay horses must be the best horses. Upon crossquestioning him, it appeared that he was led to this conclusion by the analogy between the sounds of the words *bay* and *obey*. A few days previous to this, his father had told him that spirited horses were always the most ready to obey.

These erroneous analogies between the sound of words and their sense, frequently mislead children in reasoning; we should, therefore, encourage children to explain themselves fully, that we may rectify their errors.

When S—— was between four and five years old, a lady who had taken him upon her lap, playfully put her

hands before his eyes, and (we believe) asked if he liked to be blinded. S—— said no; and he looked very thoughtful. After a pause, he added, "Smellie says that children like better to be blinded than to have their legs tied." (S—— had read this in Smellie two or three days before.)

Father. "Are you of Smellie's opinion?"

S—— hesitated.

Father. "Would you rather be blinded, or have your legs tied?"

S——. "I would rather have my legs tied not quite tight."

Father. "Do you know what is meant by *blinded?*"

S——. "Having their eyes put out."

Father. "How do you mean?"

S——. "To put something into the eye to make the blood burst out; and then the blood would come all over it, and cover it, and stick to it, and hinder them from seeing—I don't know how."

It is obvious that while this boy's imagination pictured to him a bloody orb when he heard the word *blinded*, he was perfectly right in his reasoning in preferring to have his legs tied; but he did not judge of the proposition meant to be laid before him; he judged of another, which he had formed for himself. His father explained to him that Smellie meant blindfolded, instead of blinded; a handkerchief was then tied round the boy's head, so as to hinder him from seeing, and he was made perfectly to understand the meaning of the word *blindfolded*.

In such trifles as these, it may appear of little consequence to rectify the verbal errors of children; but exactly the same species of mistake will prevent them from reasoning accurately in matters of consequence. It will not cost us much trouble to detect these mistakes when the causes of them are yet recent; but it will give us infinite trouble to retrace thoughts which have passed in infancy. When prejudices, or the habits of reasoning inaccurately, have been formed, we cannot easily discover or remedy the remote trifling origin of the evil.

When children begin to inquire about causes, they are not able to distinguish between coincidence and causation: we formerly observed the effect which this ignorance produces upon their temper; we must now observe its effect upon their understanding. A little reflec-

tion upon our own minds will prevent us from feeling that stupid amazement, or from expressing that insulting contempt, which the natural thoughts of children sometimes excite in persons who have frequently less understanding than their pupils. What account can we give of the connexion between cause and effect? How is the idea that one thing is the cause of another, first produced in our minds? All that we know is, that among human events, those which precede are in some cases supposed to produce what follow. When we have observed, in several instances, that one event constantly precedes another, we believe and expect that these events will in future recur together. Before children have had experience, it is scarcely possible that they should distinguish between fortuitous circumstances and causation; accidental coincidences of time and juxtaposition, continually lead them into error. We should not accuse children of reasoning ill; we should not imagine that they are defective in judgment when they make mistakes from deficient experience; we should only endeavour to make them delay to decide until they have repeated their experiments; and, at all events, we should encourage them to lay open their minds to us, that we may assist them by our superior knowledge.

This spring, little W—— (three years old) was looking at a man who was mowing the grass before the door. It had been raining, and when the sun shone the vapour began to rise from the grass. "Does the man mowing *make* the smoke rise from the grass?" said the little boy. He was not laughed at for this simple question. The man's mowing immediately preceded the rising of the vapour; the child had never observed a man mowing before, and it was absolutely impossible that he could tell what effects might be produced by it; he very naturally imagined that the event which immediately preceded the rising of the vapour, was the cause of its rise; the sun was at a distance—the scythe was near the grass. The little boy showed, by the tone of his inquiry, that he was in the philosophic state of doubt: had he been ridiculed for his question—had he been told that he talked nonsense, he would not, upon another occasion, have told us his thoughts, and he certainly could not have improved in reasoning.

The way to improve children in their judgment with respect to causation, is, to increase their knowledge and

to lead them to try experiments by which they may discover what circumstances are essential to the production of any given effect, and what are merely accessory, unimportant concomitants of the event.*

A child who, for the first time, sees blue and red paints mixed together to produce purple, could not be certain that the palette on which these colours were mixed, the spatula with which they were tempered, were not necessary circumstances. In many cases, the vessels in which things are mixed are essential; therefore, a sensible child would repeat the experiment exactly in the same manner in which he had seen it succeed. This exactness should not be suffered to become indolent imitation, or superstitious adherence to particular forms. Children should be excited to add or deduct particulars in trying experiments, and to observe the effects of these changes. In "Chymistry" and "Mechanics" we have pointed out a variety of occupations, in which the judgment of children may be exercised upon the immediate objects of their senses.

It is natural, perhaps, that we should expect our pupils to show surprise at those things which excite surprise in our minds; but we should consider that almost every thing is new to children; and, therefore, there is scarcely any gradation in their astonishment. A child of three or four years old would be as much amused, and probably as much surprised, by seeing a paper kite fly, as he could be by beholding the ascent of a balloon. We should not attribute this to stupidity or want of judgment, but simply to ignorance.

A few days ago, W—— (three years old), who was learning his letters, was permitted to sow an *o* in the garden with mustard seed. W—— was much pleased with the operation. When the green plants appeared above ground, it was expected that W—— would be much surprised at seeing the exact shape of his *o*. He was taken to look at it; but he showed no surprise, no sort of emotion.

We have advised that the judgment of children should be exercised upon the objects of their senses. It is scarcely possible that they should reason upon the subjects which are sometimes proposed to them: with respect to manners and society, they have had no experi-

* See Stewart.

ence—consequently they can form no judgments. By imprudently endeavouring to turn the attention of children to conversation that is unsuited to them, people may give the *appearance* of early intelligence, and a certain readiness of repartee and fluency of expression; but these are transient advantages. Smart, witty children, amuse the circle for a few hours, and are forgotten: and we may observe, that almost all children who are praised and admired for sprightliness and wit, reason absurdly, and continue ignorant. Wit and judgment depend upon different opposite habits of the mind. Wit searches for remote resemblances between objects or thoughts apparently dissimilar. Judgment compares the objects placed before it, in order to find out their differences, rather than their resemblances. The comparisons of judgment may be slow; those of wit must be rapid. The same power of attention in children may produce either wit or judgment. Parents must decide in which faculty, or, rather, in which of these habits of the mind, they wish their pupils to excel; and they must conduct their education accordingly. Those who are desirous to make their pupils witty, must sacrifice some portion of their judgment to the acquisition of the talent for wit; they must allow their children to talk frequently at random. Among a multitude of hazarded observations, a happy hit is now and then made: for these happy hits, children who are to be made wits should be praised; and they must acquire sufficient courage to speak from a cursory view of things; therefore the mistakes they make from superficial examination must not be pointed out to them; their attention must be turned to the comic, rather than to the serious side of objects; they must study the different meanings and powers of words; they should hear witty conversation, read epigrams and comedies; and in all company they should be exercised before numbers in smart dialogue and repartee.

When we mention the methods of educating a child to be witty, we at the same time point out the dangers of this education; and it is but just to warn parents against expecting inconsistent qualities from their pupils. Those who steadily prefer the solid advantages of judgment to the transient brilliancy of wit, should not be mortified when they see their children, perhaps, deficient at nine or ten years old in the showy talents for general conver-

sation; they must bear to see their pupils appear slow; they must bear the contrast of flippant gayety and sober simplicity; they must pursue exactly an opposite course to that which has been recommended for the education of wits; they must never praise their pupils for hazarding observations; they must cautiously point out any mistakes that are made from a precipitate survey of objects; they should not harden their pupils against that feeling of shame which arises in the mind from the perception of having uttered an absurdity; they should never encourage their pupils to play upon words; and their admiration of wit should never be vehemently or enthusiastically expressed.

We shall give a few examples to convince parents, that children whose reasoning powers have been cultivated, are rather slow in comprehending and in admiring wit. They require to have it explained, they want to settle the exact justice and morality of the repartee, before they will admire it.

(November 20th, 1796.) To-day at dinner the conversation happened to turn upon wit. Somebody mentioned the well-known reply of the hackney-coachman to Pope. S——, a boy of nine years old, listened attentively, but did not seem to understand it; his father endeavoured to explain it to him. "Pope was a little, ill-made man; his favourite exclamation was, 'God mend me!' Now, when he was in a passion with the hackney-coachman, he cried, as usual, 'God mend me!' 'Mend *you*, sir!' said the coachman; 'it would be easier to make a new one.' Do you understand this now, S——?"

S—— looked dull upon it, and, after some minutes' consideration, said, "Yes, Pope was ill-made; the man meant it would be better to make a new one than to mend him." S—— did not yet seem to taste the wit; he took the answer literally, and understood it soberly.

Immediately afterward, the officer's famous reply to Pope was told to S——. About ten days after this conversation, S—— said to his sister, "I wonder, M——, that people don't oftener laugh at crooked people; like the officer who called Pope a note of interrogation."

M——. "It would be illnatured to laugh at them."

S——. "But you all praised that man for saying *that* about Pope. You did not think him illnatured."

Mr. ——. "No, because Pope had been impertinent to him."

S——. "How?"

M——. "Don't you remember, that when the officer said that a note of interrogation would make the passage clear, Pope turned round, and looking at him with great contempt, asked if he knew what a note of interrogation was?"

S——. "Yes, I remember that; but I do not think that was very impertinent, because Pope might not know whether the man knew it or not."

Mr. ——. "Very true: but then you see, that Pope took it for granted that the officer was extremely ignorant; a boy who is just learning to read knows what a note of interrogation is."

S—— (thoughtfully.) "Yes, it *was* rude of Pope; but then the man was an officer, and, therefore, it was very likely that he might be ignorant; you know you said that officers were often very ignorant."

Mr. ——. "I said *often;* but not *always.* Young men, I told you, who are tired of books, and ambitious of a red coat, often go into the army to save themselves the trouble of acquiring the knowledge necessary for other professions. A man cannot be a good lawyer, or a good physician, without having acquired a great deal of knowledge; but an officer need have little knowledge to know how to stand to be shot at. But though it may be true in general, that officers are often ignorant, it is not necessary that they should be so; a man in a red coat may have as much knowledge as a man in a black, or a blue one; therefore, no sensible person should decide that a man is ignorant merely because he is an officer, as Pope did."

S——. "No, to be sure. I understand now."

M——. "But, I thought, S——, you understood this before."

Mr. ——. "He is very right not to let it pass without understanding it thoroughly. You are very right, S——, not to swallow things whole; chew them well."

S—— looked as if he was still chewing.

M——. "What are you thinking of, S——?"

S——. "Of the man's laughing at Pope for being crooked."

Mr. ——. "If Pope had not said any thing rude to that man, the man would have done very wrong to laugh

at him. If the officer had walked into a coffee-house, and, pointing at Pope, had said, 'there's a little crooked thing, like a note of interrogation,' people might have been pleased with his wit in seeing that resemblance, but they would have disliked his illnature; and those who knew Mr. Pope, would probably have answered, 'Yes, sir, but that crooked little man is one of the most witty men in England; he is the great poet, Mr. Pope.' But when Mr. Pope had insulted the officer, the case was altered. Now, if the officer had simply answered, when he was asked what a note of interrogation was, 'a little crooked thing;' and if he had looked at Pope from head to foot as he spoke these words, everybody's attention would have been turned upon Pope's figure; but then the officer would have reproached him only for his personal defects: by saying, 'a little crooked thing *that asks questions*,' the officer reproved Pope for his impertinence. Pope had just asked him a question, and everybody perceived the double application of the answer. It was an exact description of a note of interrogation, and of Mr. Pope. It is this sort of partial resemblance quickly pointed out between things, which at first appear very unlike, that surprises and pleases people, and they call it wit."

How difficult it is to explain wit to a child! and how much more difficult to fix its value and morality! About a month after this conversation had passed, S—— returned to the charge: his mind had not been completely settled about *wit*.

(January 9th, 1796.) "So, S——, you don't yet understand wit, I see," said M—— to him, when he looked very grave at something that was said to him in jest. S—— immediately asked, "What *is* wit?"

M——answered (laughing), "Wit is the folly of grown-up people."

Mr.——. "How can you give the boy such an answer? Come to me, my dear, and I'll try if I can give you a better. There are two kinds of wit, one which depends upon words, and another which depends upon thoughts. I will give you an instance of wit depending upon words:

> "'Hear yonder beggar, how he cries,
> I am so lame I cannot rise!
> If he tells truth, he lies.'"

"Do you understand that?"

S——. "No! If he tells truth, he lies! No, he can't both tell truth and tell a lie at the same time; that's impossible."

Mr. ——. "Then there is something in the words which you don't understand: in the *common* sense of the words, they contradict each other; but try if you can find out any uncommon sense—any word which can be understood in two senses."

S—— muttered the words, "If he tells truth, he lies," and looked indignant, but presently said, "Oh, now I understand; the beggar was lying down; he lies, means he lies down, not, he tells a lie."

The perception of the double meaning of the words did not seem to please this boy; on the contrary, it seemed to provoke him; and he appeared to think that he had wasted his time upon the discovery.

Mr. ——. "Now I will give you an instance of wit that depends upon the ideas rather than on the words. A man of very bad character had told falsehoods of another, who then made these two lines:

> "'Lie on, whilst my revenge shall be,
> To tell the very truth of thee.'"

S—— approved of this immediately and heartily, and recollected the only epigram he knew by rote, one which he had heard in conversation two or three months before this time. It was made upon a tall, stupid man, who had challenged another to make an epigram extempore upon him.

> "Unlike to Robinson shall be my song;
> It shall be witty, and it shan't be long."

At the time S—— first heard this epigram, he had been as slow in comprehending it as possible; but after it had been thoroughly explained, it pleased him, and remained fixed in his memory.

Mr. —— observed, that this epigram contained wit both in words and in ideas: and he gave S—— one other example. "There were two contractors; I mean people who make a bargain with government, or with those who govern the country, to supply them with certain things at a certain price; there were two contractors, one of whom was employed to supply government with corn; the other agreed to supply government

with rum. Now, you know, corn may be called grain, and rum may be called spirit. Both these contractors cheated in their bargain; both their names were the same; and the following epigram was made on them:

> "'Both of a name, lo! two contractors come;
> One cheats in corn, and t'other cheats in rum.
> Which is the greater, if you can, explain,
> A rogue in spirit, or a rogue in grain?'

"*Spirit*" continued Mr. ——, "has another sense, you know—will, intention, soul; he has the spirit of a rogue; she has the spirit of contradiction. And grain has also another meaning; the grain of this table, the grain of your coat. Died in grain, means died into the substance of the material, so that the die can't be washed out. A rogue in grain, means a man whose habit of cheating is fixed in his mind: and it is difficult to determine which is the worst, a man who has the wish, or a man who has the habit, of doing wrong. At first it seems as if you were only asked which was the worst, to cheat in selling grain, or in selling spirit; but the concealed meaning makes the question both sense and wit."

These detailed examples, we fear, may appear tiresome; but we knew not how, without them, to explain ourselves fully. We should add, for the consolation of those who admire wit, and we are among the number ourselves, that it is much more likely that wit should be ingrafted upon judgment, than that judgment should be ingrafted upon wit. The boy whom we have just mentioned, who was so slow in comprehending the nature of wit, was asked whether he could think of any answer that Pope might have made to the officer who called him a note of interrogation.

S——. "Is there any note which means *answer?*"

Mr. —— "I don't know what you mean."

S——. "Any note which means answer, as - - - - like the note of interrogation, which shows that a question is asked?"

Mr. ——. "No; but if there were, what then?"

S——. "Pope might have called the man that note."

S—— could not exactly explain his idea; somebody who was present said, that if he had been in Pope's place, he would have called the officer a note of admiration. S—— would have made this answer, if he had

been familiarly acquainted with the *name* of the note of admiration. His judgment taught him how to set about looking for a proper answer; but it could not lead him to the exact place, for want of experience.

We hope that we have, in the chapter on books, fully explained the danger of accustoming children to read what they do not understand. Poetry, they cannot early comprehend; and even if they do understand it, they cannot improve their reasoning faculty by poetic studies. The analogies of poetry and of reasoning, are very different. "The muse," says an excellent judge upon this subject, "would make but an indifferent schoolmistress." We include under the head of poetry, all books in which declamation and eloquence are substituted for reasoning. We should accustom our pupils to judge strictly of the reasoning which they meet with in books; no names of high authority should ever preclude an author's arguments from examination.

The following passage from St. Pierre's Etudes de la Nature, was read to two boys; H——, fourteen years old; S——, ten years old.

"Hurtful insects present (the same) oppositions and signs of destruction; the gnat, thirsty of human blood, announces himself to our sight by the white spots with which his brown body is speckled; and by the shrill sound of his wings, which interrupts the calm of the groves, he announces himself to our ear as well as to our eye. The carnivorous wasp is streaked like the tiger, with bands of black over a yellow ground."

H—— and S—— both at once exclaimed, that these spots in the gnat, and streaks in the wasp, had nothing to do with their stinging us. "The buzzing of the gnat," said S——, "would be a very agreeable sound to us, if we did not know that the gnat would sting, and that it was coming near us; and as to the wasp, I remember stopping one day upon the stairs to look at the beautiful black and yellow body of a wasp. I did not think of danger, nor of its stinging me then, and I did not know that it was like the tiger. After I had been stung by a wasp, I did not think a wasp such a beautiful animal. I think it is very often from our knowing that animals can hurt us, that we think them ugly. We might as well say," continued S——, pointing to a crocus which was near him, "we might as well say, that a man who has a yellow face has the same disposition as

that crocus, or that the crocus is in every thing like the man, because it is yellow."

Cicero's "curious consolation for deafness" is properly noticed by Mr. Hume. It was read to S—— a few days ago, to try whether he could detect the sophistry: he was not previously told what was thought of it by others.

"How many languages are there," says Cicero, "which you do not understand? The Punic, Spanish, Gallic, Egyptian, &c. With regard to all these, you are as if you were deaf, and yet you are indifferent about the matter. Is it then so great a misfortune to be deaf to one language more?"

"I don't think," said S——, "that was at all a good way to console the man, because it was putting him in mind that he was more deaf than he thought he was. He did not think of those languages, perhaps, till he was put in mind that he could not hear them."

In stating any question to a child, we should avoid letting our own opinion be known, lest we lead or intimidate his mind. We should also avoid all appearance of anxiety, all impatience for the answer; our pupil's mind should be in a calm state when he is to judge: if we turn his sympathetic attention to our hopes and fears, we agitate him, and he will judge by our countenances rather than by comparing the objects or propositions which are laid before him. Some people, in arguing with children, teach them to be disingenuous by the uncandid manner in which they proceed; they show a desire for victory, rather than for truth; they state the arguments only on their own side of the question, and they will not allow the force of those which are brought against them. Children are thus piqued, instead of being convinced, and in their turn they become zealots in support of their own opinions; they hunt only for arguments in their own favour, and they are mortified when a good reason is brought on the opposite side of the question to that on which they happen to have enlisted. To prevent this, we should never argue, or suffer others to argue, for victory with our pupils; we should not praise them for their cleverness in finding out arguments in support of their own opinion; but we should praise their candour and good sense when they perceive and acknowledge the force of their opponent's arguments. They should not be exercised as

advocates, but as judges; they should be encouraged to keep their minds impartial, to sum up the reasons which they have heard, and to form their opinion from these without regard to what they may have originally asserted. We should never triumph over children for changing their opinion. "I thought you were on *my* side of the question;" or, "I thought you were on the other side of the question just now!" is sometimes tauntingly said to an ingenuous child, who changes his opinion when he hears a new argument. You think it a proof of his want of judgment, that he changes his opinion in this manner; that he vibrates continually from side to side: let him vibrate, presently he will be fixed. Do you think it a proof that your scales are bad, because they vibrate with every additional weight that is added to either side?

Idle people sometimes amuse themselves with trying the judgment of children, by telling them improbable, extravagant stories, and then asking the simple listeners whether they believe what has been told them. The readiness of belief in children will be always proportioned to their experience of the veracity of those with whom they converse; consequently, children who live with those who speak truth to them, will scarcely ever be inclined to doubt the veracity of strangers. Such trials of the judgment of our pupils should never be permitted. Why should the example of lying be set before the honest minds of children, who are far from silly when they show simplicity? They guide themselves by the best rules, by which even a philosopher in similar circumstances could guide himself. The things asserted are extraordinary, but the children believe them, because they have never had any experience of the falsehood of human testimony.

The Socratic mode of reasoning is frequently practised upon children. People arrange questions artfully, so as to bring them to whatever conclusion they please. In this mode of reasoning, much depends upon getting the first move; the child has very little chance of having it; his preceptor usually begins first with a peremptory voice, "Now answer me this question!" The pupil, who knows that the interrogatories are put with a design to entrap him, is immediately alarmed; and instead of giving a direct, candid answer to the question, is always looking forward to the possible consequences

of his reply; or he is considering how he may evade the snare that is laid for him. Under these circumstances, he is in imminent danger of learning the shuffling habits of cunning; he has little chance of learning the nature of open, manly investigation.

Preceptors who imagine that it is necessary to put on very grave faces, and to use much learned apparatus in teaching the art of reasoning, are not nearly so likely to succeed as those who have the happy art of encouraging children to lay open their minds freely, and who can make every pleasing trifle an exercise for the understanding. If it be playfully pointed out to a child that he reasons ill, he smiles and corrects himself; but you run the hazard of making him positive in error, if you reprove or ridicule him with severity. It is better to seize the subjects that accidentally arise in conversation, than formally to prepare subjects for discussion.

"The king's stag hounds" (says Mr. White of Selbourne, in his entertaining observations on quadrupeds),* "the king's stag hounds came down to Alton, attended by a huntsman and six yeoman prickers with horns, to try for the stag that has haunted Hartley-wood and its environs for so long a time. Many hundreds of people, horse and foot, attended the dogs to see the deer unharboured; but though the huntsman drew Hartley-wood, and long-coppice, and Shrubwood, and Temple-hangers, and in their way back, Hartley, and Wardleham-hangers, yet no stag could be found.

"The royal pack, *accustomed to have the deer turned out before them, never drew the coverts with any address and spirit*," &c.

Children who are accustomed to have the game started and turned out before them by their preceptors, may, perhaps, like the royal pack, lose their wonted address and spirit, and may be disgracefully *at a fault* in the public chase. Preceptors should not help their pupils out in argument; they should excite them to explain and support their own observations.

Many ladies show, in general, conversation the powers of easy raillery joined to reasoning, unencumbered with pedantry. If they would employ these talents in the education of their children, they would probably be as

* A Naturalist's Calendar, by the late Rev. Gilbert White, M. A., published by Dr. Aiken, printed for B. and J. White, Fleet-street.

well repaid for their exertions, as they can possibly be by the polite, but transient applause, of the visiters to whom they usually devote their powers of entertaining A little praise or blame, a smile from a mother or a frown, a moment's attention or a look of cold neglect, has the happy or the fatal power, of repressing or of exciting the energy of a child, of directing his understanding to useful or pernicious purposes. Scarcely a day passes in which children do not make some attempt to reason about the little events which interest them, and, upon these occasions, a mother who joins in conversation with her children, may instruct them in the art of reasoning without the parade of logical disquisitions.

Mr. Locke has done mankind an essential service, by the candid manner in which he has spoken of some of the learned forms of argumentation. A great proportion of society, he observes, are unacquainted with these forms, and have not heard the name of Aristotle; yet, without the aid of syllogisms, they can reason sufficiently well for all the useful purposes of life, often much better than those who have been disciplined in the schools. It would indeed "be putting one man sadly over the head of another," to confine the reasoning faculty to the disciples of Aristotle, to any sect or system, or to any forms of disputation. Mr. Locke has very clearly shown, that syllogisms do not assist the mind in the perception of the agreement or disagreement of ideas; but, on the contrary, that they invert the natural order in which the thoughts should be placed, and in which they must be placed, before we can draw a just conclusion. To children who are not familiarized with scholastic terms, the sound of harsh words and quaint language, unlike any thing that they hear in common conversation, is alone sufficient to alarm their imagination with some confused apprehension of difficulty. In this state of alarm they are seldom sufficiently masters of themselves, either to deny or to acknowledge an adept's major, minor, or conclusion. Even those who are most expert in syllogistical reasoning, do not often apply it to the common affairs of life, in which reasoning is just as much wanted as it is in the abstract questions of philosophy: and many argue and conduct themselves with great prudence and precision, who might, perhaps, be caught on the horns of a dilemma, or who would infallibly fall victims to *the crocodile*.

Young people should not be ignorant, however, of these boasted forms of argumentation; and it may, as they advance in the knowledge of words, be a useful exercise to resist the attacks of sophistry. No ingenious person would wish to teach a child to employ them. As defensive weapons, it is necessary that young people should have the command of logical terms; as offensive weapons, these should never be used. They should know the evolutions, and be able to perform the exercise of a logician, according to the custom of the times, according to the usage of different nations; but they should not attach any undue importance to this technical art: they should not trust to it in the day of battle.

We have seen syllogisms, crocodiles, enthymems, sorites, &c., explained and tried upon a boy of nine or ten years old in playful conversation, so that he became accustomed to the terms without learning to be pedantic in the abuse of them; and his quickness in reasoning was increased by exercise in detecting puerile sophisms; such as that of *the Cretans*—Gorgias and his bargain about the winning of his first cause. In the following sorites* of Themistocles—"My son commands his mother; his mother commands me; I command the Athenians; the Athenians command Greece; Greece commands Europe; Europe commands the whole earth; therefore, my son commands the whole earth"—the sophism depends upon the inaccurate use of the *commands*, which is employed in different senses in the different propositions. This error was without difficulty detected by S—— at ten years old; and we make no doubt that any unprejudiced boy of the same age would immediately point out the fallacy without hesitation; but we do not feel quite sure that a boy exercised in logic, who had been taught to admire and reverence the ancient figures of rhetoric, would with equal readiness detect the sophism. Perhaps it may seem surprising, that the same boy, who judged so well of this sorites of Themistocles, should a few months before have been easily entrapped by the following simple dilemma:—

M——. "We should avoid what gives us pain."

S——. "Yes, to be sure."

* See Deinology; where there are many entertaining examples of the figures of rhetoric.

M——. "Whatever burns us, gives us pain."

S——. "Yes, that it does!"

M——. "We should then avoid whatever burns us."

To this conclusion S—— heartily assented, for he had but just recovered from the pain of a burn.

M——. "Fire burns us."

S——. "Yes, I know that."

M——. "We should then avoid fire."

S——. "Yes."

This hasty *yes* was extorted from the boy by the mode of interrogatory; but he soon perceived his mistake.

M.——. "We should avoid fire? What, when we are very cold?"

S——. "Oh, no: I meant to say, that we should avoid a certain degree of fire. We should not go *too* near the fire. We should not go *so* near as to burn ourselves."

Children who have but little experience, frequently admit assertions to be true in general, which are only true in particular instances; and this is often attributed to their want of judgment: it should be attributed to their want of experience. Experience, and nothing else, can rectify these mistakes: if we attempt to correct them by words, we shall merely teach our pupils to argue about terms, not to reason. Some of the questions and themes which are given to boys, may afford us instances of this injudicious education. "Is eloquence advantageous or hurtful to a state?" What a vast range of ideas, what a variety of experience in men and things, should a person possess, who is to discuss this question! Yet it is often discussed by unfortunate scholars of eleven or twelve years old. "What is the greatest good?" The answer expected by a preceptor to this question, obviously, is virtue; and if a boy can, in decent language, write a page or two about *pleasure* being a transient, and virtue a permanent good, his master flatters himself that he has early taught him to reason philosophically. But what ideas does the youth annex to the words pleasure and virtue? Or does he annex any? If he annex no idea to the words, he is merely talking about sounds.

All reasoning ultimately refers to matters of fact: to judge whether any piece of reasoning is within the comprehension of a child, we must consider whether the

facts to which it refers are within his experience. The more we increase his knowledge of facts, the more we should exercise him in reasoning upon them; but we should teach him to examine carefully before he admits any thing to be a fact, or any assertion to be true. Experiment, as to substances, is the test of truth; and attention to his own feelings, as to matters of feeling. Comparison of the evidence of others with the general laws of nature, which he has learned from his own observation, is another mode of obtaining an accurate knowledge of facts. M. Condillac, in his Art of Reasoning, maintains that the evidence of reason depends solely upon our perception of the *identity*, or, to use a less formidable word, *sameness*, of one proposition with another. "A demonstration," he says, "is only a chain of propositions, in which the same ideas, passing from one to the other, differ only because they are differently expressed; the evidence of any reasoning consists solely in its identity."

M. Condillac* exemplifies this doctrine by translating this proposition, "The measure of every triangle is the product of its height by half its base," into self-evident, or, as he calls them, identical propositions. The whole ultimately referring to the ideas which we have obtained by our senses of a triangle; of its base, of measure, height, and number. If a child had not previously acquired any one of these ideas, it would be in vain to explain one term by another, or to translate one phrase or proposition into another; they might be identical, but they would not be self-evident, propositions to the pupil; and no conclusion, except what relates merely to words, could be formed from such reasoning. The moral which we should draw from Condillac's observations for Practical Education must be, that clear ideas should first be acquired by the exercise of the senses, and that afterward, when we reason about things in words, we should use few and accurate terms, that we may have as little trouble as possible in changing or translating one phrase or proposition into another.

Children, if they are not overawed by authority, if

* Une démonstration est donc une suite de propositions, où les mêmes idées, passant de l'une à l'autre, ne diffèrent que parce qu'elles sont énoncés différemment; et l'évidence d'un raisonnement consiste uniquement dans l'identité.—See Art de Raisonner, p. 2.

they are encouraged in the habit of observing their own sensations, and if they are taught precision in the use of the words by which they describe them, will probably reason accurately where their own feelings are concerned.

In appreciating the testimony of others, and in judging of chances and probability, we must not expect our pupils to proceed very rapidly. There is more danger that they should overrate, than that they should undervalue, the evidence of others; because, as we formerly stated, we take it for granted, that they have had little experience of falsehood. We should, to preserve them from credulity, excite them in all cases where it can be obtained, never to rest satisfied without the strongest species of evidence, that of their own senses. If a child says, "I am sure of such a thing," we should immediately examine into his reasons for believing it. "Mr. A. or Mr. B. told me so," is not a sufficient cause of belief, unless the child has had long experience of A. and B.'s truth and accuracy; and, at all events, the indolent habit of relying upon the assertions of others, instead of verifying them, should not be indulged.

It would be a waste of time to repeat those experiments, of the truth of which the uniform experience of our lives has convinced us: we run no hazard, for instance, in believing any one who simply asserts that he has seen an apple fall from a tree; this assertion agrees with the great natural *law of gravity*, or, in other words, with the uniform experience of mankind: but if anybody told us that he had seen an apple hanging self-poised in the air, we should reasonably suspect the truth of his observation or of his evidence. This is the first rule which we can most readily teach our pupils in judging of evidence. We are not speaking of children from four to six years old, for every thing is almost equally extraordinary to them; but, when children are about ten or eleven, they have acquired a sufficient variety of facts to form comparisons, and to judge to a certain degree of the probability of any new fact that is related. In reading and in conversation we should now exercise them in forming judgments, where we know that they have the means of comparison. "Do you believe such a thing to be true? and why do you believe it? Can you account for such a thing?" are questions we should often ask at this period of their

education. On hearing extraordinary facts, some children will not be satisfied with vague assertions; others content themselves with saying, "It is so, I read it in a book." We should have little hopes of those who swallow every thing they read in a book; we are always pleased to see a child hesitate and doubt, and require positive proof before he believes. The taste for the marvellous is strong in ignorant minds; the wish to account for every new appearance, characterizes the cultivated pupil.

A lady told a boy of nine years old (S——) the following story, which she had just met with in "The Curiosities of Literature." An officer, who was confined in the Bastile, used to amuse himself by playing on the flute: one day he observed, that a number of spiders came down from their webs, and hung round him as if listening to his music; a number of mice also came from their holes, and retired as soon as he stopped. The officer had a great dislike to mice; he procured a cat from the keeper of the prison, and when the mice were entranced by his music, he let the cat out among them.

S—— was much displeased by this man's treacherous conduct towards the poor mice, and his indignation for some moments suspended his reasoning faculty; but, when S—— had sufficiently expressed his indignation against the officer in the affair of the mice, he began to question the truth of the story; and he said that he did not think it was certain, that the mice and spiders came to listen to the music. "I do not know about the mice," said he, "but I think, perhaps, when the officer played upon the flute, he set the air in motion, and shook the cobwebs, so as to disturb the spiders." We do not, nor did the child think, that this was a satisfactory account of the matter; but we mention it as an instance of the love of investigation, which we wish to encourage.

The difficulty of judging concerning the truth of evidence increases, when we take moral causes into the account. If we had any suspicion that a man, who told us that he had seen an apple fall from a tree, had himself pulled the apple down and stolen it, we should set the probability of his telling a falsehood, and his motive for doing so, against his evidence; and though, according to the natural physical course of things, there would be no improbability in his story, yet there might arise

improbability from his character for dishonesty; and thus we should feel ourselves in doubt concerning the fact. But if two people agreed in the same testimony, our doubt would vanish; the dishonest man's doubtful evidence would be corroborated, and we should believe, notwithstanding his general character, in the truth of his assertion in this instance. We could make the matter infinitely more complicated, but what has been said will be sufficient to suggest to preceptors the difficulty which their young and inexperienced pupils must feel, in forming judgments of facts where physical and moral probabilities are in direct opposition to each other.

We wish that a writer equal to such a task would write trials for children as exercises for their judgment; beginning with the simplest, and proceeding gradually to the more complicated cases in which moral reasonings can be used. We do not mean that it would be advisable to initiate young readers in the technical forms of law; but the general principles of justice, upon which all law is founded, might, we think, be advantageously exemplified. Such trials would entertain children extremely. There is a slight attempt at this kind of composition, we mean in a little trial in Evenings at Home; and we have seen children read it with great avidity. Cyrus's judgment about the two coats, and the ingenious story of the olive-merchant's cause, rejudged by the sensible child in the Arabian Tales, have been found highly interesting to a young audience.

We should prefer truth to fiction: if we could select any instances from real life, any trials suited to the capacity of young people, they would be preferable to any which the most ingenious writer could invent for our purpose. A gentleman who has taken his two sons, one of them ten and the other fifteen years old, to hear trials at his county assizes, found by the account which the boys gave of what they had heard, that they had been interested, and that they were capable of understanding the business.

Allowance must be made first for the bustle and noise of a public place, and for the variety of objects which distract the attention.

Much of the readiness of forming judgments depends upon the power of discarding and obliterating from our mind all the superfluous circumstances; it may be useful to exercise our pupils, by telling them now and then

stories in the confused manner in which they are sometimes related by puzzled witnesses: let them reduce the heterogeneous circumstances to order, make a clear statement of the case for themselves, and try if they can point out the facts on which the decision principally rests. This is not merely education for a lawyer; the powers of reasoning and judgment, when we have been exercised in this manner, may be turned to any art or profession. We should, if we were to try the judgment of children, observe, whether in unusual circumstances they can apply their former principles, and compare the new objects that are placed before them without perplexity. We have sometimes found, that on subjects entirely new to them, children who have been used to reason, can lay aside the circumstances that are not essential, and form a distinct judgment for themselves, independently of the opinion of others.

Last winter the entertaining life of the celebrated miser Mr. Elwes was read aloud in a family, in which there were a number of children. Mr. Elwes, once, as he was *walking* home on a dark night, in London, ran against a chair-pole and bruised both his shins. His friends sent for a surgeon. Elwes was alarmed at the idea of expense, and he laid the surgeon the amount of his bill, that the leg which he took under his own protection would get well sooner than that which was put under the surgeon's care; at the same time, Mr. Elwes promised to put nothing to the leg of which he took charge. Mr. Elwes's favourite leg got well sooner than that which the surgeon had undertaken to cure, and Mr. Elwes won his wager. In a note upon this transaction, his biographer says, "This wager would have been a bubble bet if it had been brought before the Jockey-club, because Mr. Elwes, though he promised to put nothing to the leg under his own protection, took Velno's vegetable sirup during the time of its cure."

C—— (a girl of twelve years old) observed when this anecdote was read, that "still the wager was a fair wager, because *the medicine* which Mr. Elwes took, if it was of any use, must have been of use to both legs; therefore the surgeon and Mr. Elwes had equal advantage from it." C—— had never heard of the Jockey-club, or of bubble bets before, and she used the word *medicine*, because she forgot the name of Velno's vegetable sirup.

We have observed,* that works of criticism are unfit for children, and teach them rather to remember what others say of authors, than to judge of the books themselves impartially: but, when we object to works of criticism, we do not mean to object to criticism; we think it an excellent exercise for the judgment, and we have ourselves been so well corrected, and so kindly assisted, by the observations of young critics, that we cannot doubt their capacity. This book has been read to a jury of young critics, who gave their utmost attention to it for about half an hour at a sitting, and many amendments have been made from their suggestions. In the chapter on Obstinacy, for instance, when we were asserting that children sometimes forget their old bad habits, and do not consider these as a part of themselves, there was this allusion:—

"As the snake, when he casts his skin, leaves the slough behind him, and winds on his way in new and beautiful colours."

The moment this sentence was read, it was objected to by the audience. Mr. —— objected to the word slough, as an ill-sounding, disagreeable word, which conveyed at first to the eye the idea of a wet, boggy place; such as the Slough of Despond. At last S——, who had been pondering over the affair in silence, exclaimed, "But I think there's another fault in the allusion; do not snakes cast their skins every year? Then these *new and beautiful colours*, which are the good habits, must be thrown aside and forgotten the next time; but that should not be."

This criticism appeared conclusive even to the author, and the sentence was immediately expunged.

When young people have acquired a command of language, we must be careful lest their fluency and their ready use of synonymous expressions should lessen the accuracy of their reasoning. Mr. Horne Tooke has ably shown the connexion between the study of language and the art of reasoning. It is not necessary to make our pupils profound grammarians or etymologists; but attention to the origin, abbreviations, and various meanings of words, will assist them not only to speak, but to think and argue, with precision. This is not a study of abstract speculation, but of practical, daily

* See Chapter on Books.

utility; half the disputes, and much of the misery of the world, originate and perpetuate themselves by the inaccurate use of words. One party uses a word in *this* sense, the opposite party uses the same word in another sense; all their reasonings appear absurd to each other; and, instead of explaining them, they quarrel. This is not the case merely in *philosophical* disputes between authors, but it happens continually in the busy, active scenes of life. Even while we were writing this passage, in the newspaper of to-day we met with an instance that is, sufficiently striking.

"The accusation against me," says Sir Sidney Smith, in his excellent letter to Pichegru, expostulating upon his unmerited confinement, "brought forward by *your* justice of the peace, was, that I was the enemy of the republic. You know, general, that with military men, the word *enemy* has merely a technical signification, without expressing the least character of hatred. You will readily admit this principle, the *result* of which is, that I ought not to be persecuted for the injury I have been enabled to do while I carried arms against you."

Here the argument of two generals, one of whom is pleading for his liberty, if not for his life, turns upon the meaning and construction of a single word. Accuracy of reasoning and some knowledge of language may, it appears, be of essential service in all professions.

It is not only necessary to attend to the exact meaning which is avowedly affixed to any terms used in argument, but it is also useful to attend to the thoughts which are often suggested to the disputants by certain words. Thus, the words happiness and beauty suggest, in conversation, very different ideas to different men; and in arguing concerning these, they could never come to a conclusion. Even persons who agree in the same definition of a word, frequently do not sufficiently attend to the ideas which the word suggests; to the association of thoughts and emotions which it excites; and consequently they cannot strictly abide by their own definition, nor can they discover where the error lies. We have observed* that the imagination is powerfully affected by words that suggest long trains of ideas; our reasonings are influenced in the same manner, and the

* See Chapter on Imagination.

elliptical figures of speech are used in reasoning as well as in poetry.

"I would do so and so, if I were Alexander."

"And so would I, if I were Parmenio;"

is a short reply, which suggests a number of ideas and a train of reasoning. To those who cannot supply the intermediate ideas, the answer would not appear either sublime or rational. Young people, when they appear to admire any compressed reasoning, should be encouraged to show that they can supply the thoughts and reasons that are not expressed. Vivacious children will be disgusted, however, if they are required to detail upon the subject;* all that is necessary is, to be sure that they actually comprehend what they admire.

Sometimes a question that appears simple, involves the consideration of others which are difficult. Whenever a preceptor cannot go to the bottom of the business, he will do wisely to say so at once to his pupil, instead of attempting a superficial or evasive reply. For instance, if a child were to hear that the Dutch burn and destroy quantities of spice, the produce of their Indian islands, he would probably express some surprise, and perhaps some indignation. If a preceptor were to say, "The Dutch have a right to do what they please with what is their own, and the spice is their own," his pupil would not yet be satisfied; he would probably say, "Yes, they have a right to do what they please with what is their own; but why should they destroy what is useful?" The preceptor might answer, if he chose to make a foolish answer, "The Dutch follow their own interest in burning the spice; they sell what remains at a higher price; the market would be overstocked if they did not burn some of their spice." Even supposing the child to understand the terms, this would not be a satisfactory answer; nor could a satisfactory answer be given, without discussing the nature of commerce and the *justice* of monopolies. Where one question in this manner involves another, we should postpone the discussion, if it cannot be completely made; the road may be just pointed out, and the pupil's curiosity may be excited to future inquiry. It is even better to be ignorant than to have superficial knowledge.

A philosopher who himself excelled in accuracy of

* See Attention.

reasoning, recommends the study of mathematics, to improve the acuteness and precision of the reasoning faculty.* To study any thing accurately, will have an excellent effect upon the mind; and we may afterward direct the judgment to whatever purposes we please. It has often been remarked, as a reproach upon men of science and literature, that those who judge extremely well of books and of abstract philosophical questions, do not show the same judgment in the active business of life: a man undoubtedly may be a good mathematician, a good critic, an excellent writer, and may yet not show, or, rather, not employ, much judgment in his conduct: his powers of reasoning cannot be deficient; the habit of employing those powers in conducting himself, he should have been taught by early education. Moral reasoning and the habit of acting in consequence of the conviction of the judgment, we call prudence; a virtue of so much consequence to all the other virtues; a virtue of so much consequence to ourselves and to our friends, that it surely merits a whole chapter to itself in Practical Education.

CHAPTER XXIV.

ON PRUDENCE AND ECONOMY.

VOLTAIRE says that the King of Prussia always wrote with one kind of enthusiasm, and acted with another. It often happens that men judge with one degree of understanding, and conduct themselves with another;† hence the commonplace remarks on the difference between theory and practice; hence the observation, that it is easy to be prudent for other people, but extremely difficult to be prudent for ourselves. Prudence is a vir-

* Locke. Essay on the Conduct of the Human Understanding.

† "Here lies the mutton-eating king,
Whose promise none relied on;
Who never *said* a foolish thing,
And never did a wise one."
Epitaph on Charles Second.

tue compounded of judgment and resolution: we do not here speak of that narrow species of prudence which is more properly called worldly wisdom; but we mean that enlarged, comprehensive wisdom, which, after taking a calm view of the objects of happiness, steadily prefers the greatest portion of felicity. This is not a selfish virtue; for, according to our definition, benevolence, as one of the greatest sources of our pleasures, must be included in the truly prudent man's estimate. Two things are necessary to make any person prudent, —the power to judge, and the habit of acting in consequence of his conviction. We have, in the preceding chapter, as far as we were able, suggested the best methods of cultivating the powers of reasoning in our pupils; we must consider now how these can be applied immediately to their conduct, and associated with habits of action.

Instead of deciding always for our young pupils, we should early accustom them to choose for themselves about every trifle which is interesting to childhood: if they choose wisely, they should enjoy the natural reward of their prudence; and if they decide rashly, they should be suffered to feel the consequence of their own error. Experience, it is said, makes even fools wise; and the sooner we can give experience, the sooner we shall teach wisdom. But we must not substitute belief upon trust for belief upon conviction. When a little boy says, "I did not eat any more custard, because mamma told me that the custard would make me sick," he is only obedient, he is not prudent; he submits to his mother's judgment, he does not use his own. When obedience is out of the question, children sometimes follow the opinions of others; of this we formerly gave an instance (see Toys) in the poor boy who chose a gilt coach, because his mamma "*and everybody said it was the prettiest*," while he really preferred the useful cart: we should never prejudice them, either by our *wisdom* or our folly.

A sensible little boy of four years old had seen somebody *telling fortunes* in the grounds of coffee; but when he had a cup of coffee given to him, he drank it all, saying, "Coffee is better than fortune!"

When their attention is not turned to divine what the spectators think and feel, children will have leisure to consult their own minds, and to compare their own feel-

ings. As this has been already spoken of,* we shall not dwell upon it; we only mention it as a necessary precaution in teaching prudence.

Some parents may perhaps fear, that if they were to allow children to choose upon every trifling occasion for themselves, they would become wilful and troublesome: this certainly will be the effect, if we make them think that there is a pleasure in the exercise of freewill, independent of any good that may be obtained by judicious choice. "Now, my dear, you shall have *your* choice! You shall choose for *yourself!* You shall have your *free* choice!" are expressions that may be pronounced in such a tone, and with such an emphasis, to a child, as immediately to excite a species of triumphant ecstasy from the mere idea of having his *own* free choice. By a different accent and emphasis we may repress the ideas of triumph, and without intimidating the pupil, may turn his mind to the difficulties rather than the glory of being in a situation to decide for himself.

We must not be surprised at the early imprudence of children; their mistakes, when they first are allowed to make a choice, are inevitable; all their sensations are new to them—consequently they cannot judge of what they shall like or dislike. If some of Lord Macartney's suite had, on his return from the late embassy to China, brought home some plant whose smell was perfectly unknown to Europeans, would it have been possible for the greatest philosopher in England to decide, if he had been asked, whether he should like the unknown perfume? Children, for the first five or six years of their lives, are in the situation of this philosopher, relatively to external objects. We should never reproachfully say to a child, "You asked to smell such a thing; you asked to see such a thing; and now you have had your wish, you don't like them!" How can the child possibly judge of what he shall like or dislike, before he has tried? Let him try experiments upon his own feelings; the more accurate knowledge he acquires, the sooner he will be enabled to choose *prudently*. You may expedite his progress by exciting him to compare each new sensation with those to which he is already familiarized; this will counteract that love of novelty which is often

* See Taste and Imagination.

found dangerous to prudence; if the mind is employed in comparing, it cannot be dazzled by new objects.

Children often imagine, that what they like for the present minute they shall continue to like for ever; they have not learned from experiment, that the most agreeable sensations fatigue, if they are prolonged or frequently repeated; they have not learned, that all violent stimuli are followed by weariness or ennui. The sensible preceptor will not insist upon his pupil's knowing these things by inspiration, nor will he expect that his assertions or prophecies should be implicitly believed; he will wait till the child *feels*, and at that moment he will excite his pupil to observe his own feelings. "You thought that you should never be tired of smelling that rose, or of looking at that picture; now you perceive that you *are* tired: remember this; it may be of use to you another time." If this be said in a friendly manner, it will not pique the child to defend his past choice, but it will direct his future judgment.

Young people are often reproached for their imprudence in preferring a small present pleasure to a large distant advantage: this error also arises from inexperience, not from want of judgment, or deficiency in strength of mind. When that which has been the future has, in its turn, become present, children begin to have some idea of the nature of time, and they can then form some comparisons between the value of present and future pleasure. This is a very slow process; old people calculate and depend upon the distant future more than the young, not always from their increased wisdom or prudence, but merely from their increased experience, and consequent belief that the future will in time arrive. It is imprudent in old people to depend upon the future; if they were to reason upon the chance of their lives, they ought not to be secure of its arrival; yet habit in this instance, as in many others, is more powerful than reason; in all the plans of elderly people, there is seldom any error from impatience as to the future; there often appear gross errors in their security as to its arrival. If these opposite habits could be mixed in the minds of the old and of the young, it would be for their mutual advantage.

It is not possible to *infuse* experience into the mind; our pupils must feel for themselves: but, by teaching them to observe their own feelings, we may abridge

their labour; a few lessons will teach a great deal, when they are properly applied. To teach children to calculate and compare their present and future pleasures, we may begin by fixing short intervals of time for our experiments; an hour, a day, a week, perhaps, are periods of time to which their imagination will easily extend; they can measure and compare their feelings within these spaces of time, and we may lead them to observe their own errors in not providing for the future. "Now Friday is come; last Monday you thought Friday would never come. If you had not cut away all your pencil last week, you would have had some left to draw with to-day. Another time you will manage better."

We should also lead them to compare their ideas of any given pleasure before and after the period of its arrival. "You thought last summer that you should like making snowballs in winter, better than making hay in summer. Now you have made snowballs to-day; and you remember what you felt when you were making hay last summer; do you like the snowball pleasure or the hay-making pleasure, the best?" See Berquin's *Quatre Saisons*.

If our pupils, when they have any choice to make, prefer a small present gratification to a great future pleasure, we should not, at the moment of their decision, reproach their imprudence, but we should *steadily make them abide by their choice;* and when the time arrives at which the greater pleasure might have been enjoyed, we should remark the circumstance, but not with a tone of reproach, for it is their affair, not ours. "You preferred having a sheet of paper the moment you wanted it last week, to having a quire of paper this week."—"Oh, but," says the child, "I wanted a sheet of paper very much then, but I did not consider how soon this week would come—I wish I had chosen the quire."—"Then remember what you feel now, and you will be able to choose better upon another occasion." We should always refer to the pupil's own feelings, and look forward to their future advantage. The reason why so few young people attend to advice is, that their preceptors do not bring it actually home to their feelings; it is useless to reproach for past imprudence; the child sees the error as plainly as we do: all that can be done, is to make it a lesson for the future.

To a geometrician, the words, *by proposition*, 1*st*, stand

for a whole demonstration: if he recollects that he has once gone over the demonstration, he is satisfied of its truth; and, without verifying it again, he makes use of it in making out the demonstration of a new proposition. In moral reasoning, we proceed in the same manner; we recollect the result of our past experiments, and we refer to this moral demonstration in solving a new problem. In time, by frequent practice, this operation is performed so rapidly by the mind that we scarcely perceive it, and yet it guides our actions. A man, in walking across the room, keeps out of the way of the tables and chairs, without perceiving that he reasons about the matter; a sober man avoids hard drinking, because he knows it to be hurtful to his health; but he does not, every time he refuses to drink, go over the whole train of reasoning which first decided his determination. A modern philosopher* calls this rapid species of reasoning "intuitive analogy;" applied to the business of life, the French call it tact. Sensible people have this tact in higher perfection than others; and prudent people govern themselves by it more regularly than others. By the methods which we have recommended, we hope it may be successfully cultivated in early education.

Rousseau, in expressing his contempt for those who make *habit* their only guide of action, goes, as he is apt to do in the heat of declamation, into the error opposite to that which he ridicules. "The only habit," says he, "that I wish my Emilius to have, is the habit of having no habits." Emilius would have been a strange being, had he literally accomplished his preceptor's wish. To go up stairs, would have been a most operose, and to go down stiars, a most tremendous affair to Emilius, for he was to have no habits: between every step of the stairs, new deliberations must take place, and fresh decisions of the judgment ensue. In his moral judgments, Emilius would have had as much useless labour. Habit surely is necessary, even to those who make reason the ultimate judge of their affairs. Reason is not to be appealed to upon every trivial occasion, to rejudge the same cause a million of times. Must a man, every time he draws a straight line, repeat to himself, "a right line is that which lieth evenly between its points?"

* Darwin's Zoonomia.

Must he rehearse the propositions of Euclid, instead of availing himself of their practical use?

"Christian, canst thou raise a perpendicular upon a straight line?" is the apostrophe with which the cross-legged emperor of Barbary, seated on his throne of rough deal boards, accosts every *learned* stranger who frequents his court. In the course of his reign, probably, his Barbaric majesty may have reiterated the demonstration of this favourite proposition, which he learned from a French surgeon, about five hundred times; but his majesty's understanding is not materially improved by these recitals; his geometrical learning is confined, we are told, to this single proposition.

It would have been scarcely worth while to single out for combat this paradox of Rousseau's concerning habit, if it had not presented itself in the formidable form of an antithesis. A false maxim, conveyed in an antithesis, is dangerous, because it is easily remembered and repeated, and it quickly passes current in conversation.

But to return to our subject, of which we have *imprudently* lost sight. Imprudence does not always arise from our neglect of our past experience, or from our forgetting to take the future into our calculations, but from false associations, or from passion. Objects often appear different to one man, from what they do to the rest of the world: this man may reason well upon what the majority of reasonable people agree to call false appearances; he may follow strictly the conviction of his own understanding, and yet the world will say that he acts very imprudently. To the taste or smell of those who are in a fever, objects not only appear, but really are, different from what they appear to persons in sound health: in the same manner to the imagination, objects have really a different value in moments of enthusiasm, from what they have in our cooler hours, and we scarcely can believe that our view of objects will ever vary. It is in vain to oppose reason to false associations: we must endeavour to combat one set of associations by another, and to alter the situation, and consequently the views,* of the mistaken person. Suppose, for instance, that a child had been in a coach and six upon some *pleasant* excursion (it is an improbable thing, but we may suppose any thing): suppose a child had

* Chapter on Imagination.

enjoyed, from some accidental circumstances, an extraordinary degree of pleasure in a coach and six, he might afterward long to be in a similar vehicle, from a mistaken notion that it could confer happiness. Here we should not oppose the force of reasoning to a false association, but we should counteract the former association. Give the child an equal quantity of amusement when he is not in a coach and six, and then he will form fresh pleasurable associations with other objects, which may balance his first prepossession. If you oppose reason ineffectually to passion or taste, you bring the voice and power of reason into discredit with your pupil. When you have changed his view of things, you may then reason with him, and show him the cause of his former mistake.

In the excellent fable of the shield that was gold on one side and silver on the other, the two disputants never could have agreed until they changed places.—When you have, in several instances, proved by experiment, that you judge more prudently than your pupil, he will be strongly inclined to listen to your counsels, and then your experience will be of real use to him; he will argue from it with safety and satisfaction. When, after recovering from fits of passion or enthusiasm, you have, upon several occasions, convinced him that your admonitions would have prevented him from the pain of repentance, he will recollect this when he again feels the first rise of passion in his mind; and he may, in that lucid moment, avail himself of your calm reason, and thus avoid the excesses of extravagant passions. That unfortunate French monarch,* who was liable to temporary fits of phrensy, learned to foresee his approaching malady, and often requested his friends to disarm him, lest he should injure any of his attendants.

In a malady which precludes the use of reason, it was possible for this humane patient to foresee the probable mischief he might do to his fellow-creatures, and to take prudent measures against his own violence; and may not we expect, that those who are early accustomed to attend to their own feelings, may prepare against the extravagance of their own passions, and avail themselves of the regulating advice of their temperate friends?

* Charles VI.

In the education of girls, we must teach them much more caution than is necessary to boys: their prudence must be more the result of reasoning than of experiment; they *must* trust to the experience of others; they cannot always have recourse to what *ought to be;* they must adapt themselves to what is. They cannot rectify the material mistakes in their conduct.* Timidity, a certain tardiness of decision, and reluctance to act in public situations, are not considered as defects in a woman's character: her pausing prudence does not, to a man of discernment, denote imbecility; but appears to him the graceful, auspicious characteristic of female virtue. There is always more probability that women should endanger their own happiness by precipitation than by forbearance. Promptitude of choice is seldom expected from the female sex; they should avail themselves of the leisure that is permitted to them for reflection. "Begin nothing of which you have not well considered the end," was the piece of advice for which the Eastern sultan† paid a purse of gold, the price set upon it by a sage. The monarch did not repent of his purchase. This maxim should be engraved upon the memory of our female pupils, by the repeated lessons of education. We should, even in trifles, avoid every circumstance which can tend to make girls venturesome; which can encourage them to trust their good fortune, instead of relying on their own prudence. Marmontel's tale, entitled "*Heureusement*," is a witty, but surely not a *moral* tale. Girls should be discouraged from hazarding opinions in general conversation; but among their friends, they should be excited to reason with accuracy and with temper.‡ It is really a part of a woman's prudence to have command of temper; if she has it not, her wit and sense will not have their just value in domestic life. Calphurnia, a Roman lady, used to plead her own causes before the senate, and we are informed, that she became "so troublesome and confident, that the judges decreed that thenceforward no woman should be suffered to plead." Did not this lady make an imprudent use of her talents?

In the choice of friends, and on all matters of taste,

* "No penance can absolve their guilty fame,
Nor tears, that wash out sin, can wash out shame."

† See Persian Tales. ‡ See Chapter on Temper.

young women should be excited to reason about their own feelings. "There is no reasoning about taste," is a pernicious maxim: if there were more reasoning, there would be less disputation upon this subject. If women questioned their own minds, or allowed their friends to question them, concerning the reasons of their "preferences and aversions," there would not, probably, be so many love-matches, and so few love-marriages. It is in vain to expect that young women should begin to reason miraculously, at the very moment that reason is wanted in the guidance of their conduct. We should also observe, that women are called upon for the exertion of their prudence, at an age when young men are scarcely supposed to possess that virtue; therefore, women should be more early and more carefully educated for the purpose. The important decisions of woman's life are often made before she is twenty: a man does not come upon the theatre of public life, where most of his prudence is shown, till he is much older.

Economy is, in women, an essential domestic virtue. Some women have a foolish love of expensive baubles: a taste which a very little care, probably, in their early education, might have prevented. We are told that when a collection of three hundred and fifty pounds was made for the celebrated Cuzzona, to save her from absolute want, she immediately laid out two hundred pounds of the money in the purchase of a *shell cap*, which was then in fashion.* Prudent mothers will avoid showing any admiration of pretty trinkets before their young daughters; and they will oppose the ideas of utility and durability to the mere caprice of fashion, which creates a taste for beauty, as it were, by proclamation. "Such a thing is pretty, but it is of no use. Such a thing is pretty, but it will soon wear out"—a mother may say; and she should prove the truth of her assertions to her pupils.

Economy is usually confined to the management of money, but it may be shown on many other occasions: economy may be exercised in taking care of whatever belongs to us; children should have the care of their own clothes, and if they are negligent of what is in their charge, this negligence should not be repaired by

* Mrs. Piozzi's English Synonomy, vol. i. p. 359.

servants or friends; they should feel the real natural consequences of their own neglect, but no other punishment should be inflicted; and they should be left to make their own reflections upon their errors and misfortunes, undisturbed by the reproaches of their friends, or by the prosing moral of a governess or preceptor. We recommend, for we must descend to these trifles, that girls should be supplied with an independent stock of all the little things which are in daily use; housewives and pocketbooks, well stored with useful implements; and there should be no lending* and borrowing among children. It will be but just to provide our pupils with convenient places for the preservation and arrangement of their little goods. Order is necessary to economy; and we cannot more certainly create a taste for order, than by showing early its advantages in practice as well as in theory. The aversion to *old* things should, if possible, be prevented in children: we should not express contempt for *old* things, but we should treat them with increased reverence, and exult in their having arrived under our protection to such a creditable age. "I have had such a hat so long, therefore it does not signify what becomes of it!" is the speech of a *promising* little spendthrift. "I have taken care of my hat, it has lasted so long; and I hope I shall make it last longer," is the exultation of a young economist, in which his prudent friends should sympathize.

"Waste not, want not," is an excellent motto in an English nobleman's kitchen.† The most opulent parents ought not to be ashamed to adopt it in the economic education of their children: early habits of care, and an early aversion and contempt for the selfish spirit of wasteful extravagance, may preserve the fortunes, and, what is of far more importance, the integrity and peace of mind, of noble families.

We have said that economy cannot be exercised without children's having the management of money. While our pupils are young, if they are educated at home, they cannot have much real occasion for money; all the necessaries of life are provided for them; and if they have money to spend, it must be probably laid out on superfluities. This is a bad beginning. Money should be represented to our pupils as what it really is, the con-

* See Toys. † Lord Scarsdale's. Keddleston.

ventional sign of the value of commodities: before children are acquainted with the real and comparative value of any of these commodities, it is surely imprudent to trust them with money. As to the idea that children may be charitable and generous in the disposal of money, we have expressed our sentiments fully upon this subject already.* We are, however, sensible, that when children are sent to any school, it is advisable to supply them with pocket-money enough to put them upon an equal footing with their companions; otherwise, we might run the hazard of inducing worse faults than extravagance—meanness, or envy.

Young people who are educated at home should, as much as possible, be educated to take a family interest in all the domestic expenses. Parental reserve in money matters is extremely impolitic; as Mr. Locke judiciously observes, that a father who wraps his affairs up in mystery, and who "views his son with jealous eyes," as a person who is to begin *to live* when he dies, *must* make him an enemy by treating him as such. A frank simplicity and cordial dependance upon the integrity and upon the sympathy of their children, will ensure to parents their disinterested friendship. Ignorance is always more to be dreaded than knowledge. Young people who are absolutely ignorant of affairs, who have no idea of the relative expense of different modes of living, and of the various wants of a family, are apt to be extremely unreasonable in the imaginary disposal of their parent's fortune; they confine their view merely to their own expenses. "I *only* spend such a sum," they say, "and surely that is nothing to my father's income." They consider only the absolute amount of what they spend; they cannot compare it with the number of other expenses which are necessary for the rest of the family: they do not know these, therefore they cannot perceive the proportion which it is reasonable that their expenditure should bear to the whole. Mrs. D'Arblay, in one of her excellent novels, has given a striking picture of the ignorance in which young women sometimes leave their father's house, and begin to manage in life for themselves, without knowing any thing of the *powers* of money. Camilla's imprudence must chiefly be ascribed to her ignorance. Young women should be ac-

* See Chapter on Sympathy and Sensibility.

customed to keep the family accounts, and their arithmetic should not be merely a speculative science; they should learn the price of all necessaries, and of all luxuries; they should learn what luxuries are suited to their fortune and rank, what degree of expense in dress is essential to a regularly neat appearance, and what must be the increased expense and temptations of fashion in different situations; they should not be suffered to imagine that they can resist these temptations more than others, if they get into company above their rank; nor should they have any indistinct idea, that by some wonderful economical operations they can make a given sum of money go farther than others can do. The steadiness of calculation will prevent all these vain notions; and young women, when they see in stubborn figures what must be the consequence of getting into situations where they must be tempted to exceed their means, will probably begin by avoiding, instead of braving, the danger.

Most parents think that their sons are more disposed to extravagance than their daughters; the sons are usually exposed to greater temptations. Young men excite each other to expense, and to a certain carelessness of economy, which assumes the name of spirit, while it often forfeits all pretensions to justice. A prudent father will never, from any false notions of forming his son early to *good* company, introduce him to associates whose only merit is their rank or their fortune. Such companions will lead a weak young man into every species of extravagance, and then desert and ridicule him in the hour of distress. If a young man has a taste for literature and for rational society, his economy will be secured, simply because his pleasures will not be expensive; nor will they be dependant upon the caprice of fashionable associates. The intermediate state between that of a schoolboy and a man, is the dangerous period in which taste for expense is often acquired before the means of gratifying it are obtained. Boys listen with anxiety to the conversation of those who are a few years older than themselves. From this conversation they gather *information* respecting the ways of the world, which, though often erroneous, they tenaciously believe to be accurate; it is in vain that their older friends may assure them that such and such frivolous expenses are not necessary to the wellbeing

of a man in society; they adhere to the opinion of the younger counsel; they conclude that every thing has changed since their parents were young, that they must not govern themselves by antiquated notions, but by the scheme of economy which happens to be the fashion of the day. During this boyish state, parents should be particularly attentive to the company which their sons keep; and they should frequently, in conversation with sensible, but not with morose or oldfashioned people, lead to the subject of economy, and openly discuss and settle the most essential points. At the same time, a father should not intimidate his son with the idea that nothing but rigid economy can win his parental favour; his parental favour should not be a mercenary object; he should rather show his son that he is aware of the great temptations to which a young man is exposed in going first into the world: he should show him, both that he is disposed to place confidence in him, and that he yet knows the fallibility of youthful prudence. If he expect from his son unerring prudence, he expects too much; and he will, perhaps, create an apprehension of his displeasure, which may chill and repress all ingenuous confidence. In all his childish, and in all his youthful distresses, a son should be habitually inclined to turn to his father as to his *most indulgent friend.* "Apply to me if ever you get into any difficulties, and you will always find me your most indulgent friend," were the words of a father to a child of twelve years old, pronounced with such encouraging benevolence, that they were never forgotten by the person to whom they were addressed.

Before a young man goes into the world, it will be a great advantage to him to have some share in the management of his father's affairs; by laying out money for another person, he will acquire habits of care, which will be useful to him afterward in his own affairs. A father who is building, or improving grounds, who is carrying on works of any sort, can easily allot some portion of the business to his son, as an exercise for his judgment and prudence. He should hear and see the estimates of workmen, and he should, as soon as he has collected the necessary facts, form estimates of his own before he hears the calculation of others: this power of estimating will be of great advantage to gentlemen: it will circumscribe their wishes, and it

will protect them against the low frauds of designing workmen.

It may seem trivial, but we cannot forbear to advise young people to read the newspapers of the day regularly: they will keep up by these means with the current of affairs, and they will exercise their judgment upon interesting business and large objects. The sooner boys acquire the sort of knowledge necessary for the conversation of sensible men, the better; they will be the less exposed to feel false shame. False shame, the constant attendant upon ignorance, often leads young men into imprudent expenses; when, upon any occasion, they do not know by any certain calculation to what any expense may amount, they are ashamed to inquire minutely. From another sort of weakness, they are ashamed to resist the example or importunity of numbers; against this weakness, the strong desire of preserving the good opinion of estimable friends, is the best preservative. The taste for the esteem of superior characters, cures the mind of fondness for vulgar applause.

We have, in the very first chapter of this book, spoken of the danger of the passion for gaming; and the precautions that we have recommended in early education will, it is hoped, prevent the disorder from appearing in our pupils as they grow up. Occupations for the understanding, and objects for the affections, will preclude all desire for the violent stimulus of the gaming-table. It may be said, that many men of superior abilities, and of generous, social tempers, become gamesters. They do so because they have exhausted other pleasures, and they have been accustomed to strong excitements. Such excitements do not become necessary to happiness till they have been made habitual.

There was an excellent Essay on Projects published some years ago by an anonymous writer, which we think would make a great impression upon any young persons of good sense. We do not wish to repress the generous, enterprising ardour of youth, or to confine the ideas to the narrow circle of which self must be the centre. Calculation will show what can be done, and how it can be done; and thus the individual, without injury to himself, may, if he wish it, speculate extensively for the good of his fellow-creatures.

It is scarcely possible that the mean passion of avarice should exist in the mind of any young person who has been tolerably well educated; but too much pains cannot be taken to preserve that domestic felicity which arises from entire confidence and satisfaction among the individuals of a family with regard to property. Exactness in accounts and in business relative to property, far from being unnecessary among friends and relations, is, we think, peculiarly agreeable, and essential to the continuance of frank intimacy. We should, while our pupils are young, teach them a love for exactness about property; a respect for the rights of others, rather than a tenacious anxiety about their own. When young people are of a proper age to manage money and property of their own, let them know precisely what they can annually spend; in whatever form they receive an income, let that income be certain: if presents of pocket-money or of dress are from time to time made to them, this creates expectation and uncertainty in their minds. All persons who have a fluctuating revenue are disposed to be imprudent and extravagant. It is remarkable that the West-Indian planters, whose property is a kind of lottery, are extravagantly disposed to speculation; in the hopes of a favourable season, they live from year to year in unbounded profusion. It is curious to observe, that the propensity to extravagance exists in those who enjoy the greatest affluence, and in those who have felt the greatest distress. Those who have little to lose are reckless about that little; and any uncertainty as to the tenure of property, or as to the rewards of industry, immediately operates, not only to depress activity, but to destroy prudence. "Prudence," says Mr. Edwards, "is a term that has no place in the negro vocabulary; instead of trusting to what are called the *ground provisions*, which are safe from the hurricanes, the negroes, in the cultivation of their *own* lands, trust more to plantain-groves, corn, and other vegetables that are liable to be destroyed by storms. When they earn a little money, they immediately gratify their palate with salted meats and other provisions, which are to them delicacies. The idea of accumulating, and of being economic in order to accumulate, is unknown to these poor slaves, who hold their lands by the most uncertain of all tenures."* We

* See Edwards's History of the West Indies.

are told that the *provision ground*, the creation of the negro's industry, and the hope of his life, is sold by public auction to pay his master's debts. Is it wonderful that the term prudence should be unknown in the negro vocabulary?

The very poorest class of people in London, who feel despair, and who merely live to bear the evil of the day, are, it is said, very little disposed to be prudent. In a late publication, Mr. Colquhoun's "Treatise on the Police of the Metropolis," he tells us, that the "chief consumption of oysters, crabs, lobsters, pickled salmon, &c., when first in season, and when the prices arehigh, is by the *lowest* classes of the people. The middle ranks, and those immediately under them, abstain generally from such indulgences until the prices are moderate."*

Perhaps it may be thought that the consumption of oysters, crabs, and pickled salmon, in London, or the management of the negro's *provision ground* in Jamaica, has little to do with a practical essay upon economy and prudence; but we hope that we may be permitted to use these farfetched illustrations, to show that the same causes act upon the mind independently of climate: they are mentioned here to show that the little *revenue* of young people ought to be fixed and certain.

When we recommend economy and prudence to our pupils, we must, at the same time, keep their hearts open to the pleasures of generosity; economy and prudence will put it in the power of the generous to give.

> "The worth of any thing
> Is as much money as 'twill bring,"

will never be the venal maxim of those who understand the nature of philosophic prudence. The worth of money is to be estimated by the number of real pleasures which it can procure: there are many which are not to be bought by gold;† these will never lose their pre-eminent value with persons who have been educated both to reason and to feel.

* See a note in page 32 of the Treatise on the Police of the Metropolis.

† "Turn from the glittering bribe your scornful eye,
Nor sell for gold what gold can never buy."
Johnson's London.

CHAPTER XXV.

SUMMARY.

"The general principle," that we should associate pleasure with whatever we wish that our pupils should pursue, and pain with whatever we wish that they should avoid, forms, our readers will perceive, the basis of our plan of education. This maxim, applied to the cultivation of the understanding or of the affections, will, we apprehend, be equally successful; virtues, as well as abilities, or what is popularly called genius, we believe to be the result of education, not the gift of nature. A fond mother will tremble at the idea, that so much depends upon her own care in the early education of her children; but, even though she may be inexperienced in the art, she may be persuaded that patience and perseverance will ensure her success: even from her timidity we may prophesy favourably; for, in education, to know the danger, is often to avoid it. The first steps require rather caution and gentle kindness, than any difficult or laborious exertions: the female sex are, from their situation, their manners, and talents, peculiarly suited to the superintendence of the early years of childhood. We have, therefore in the first chapters of the preceding work, endeavoured to adapt our remarks principally to female readers, and we shall think ourselves happy if any anxious mother feels their practical utility.

In the chapters on Toys, Tasks, and Attention, we have attempted to show how the instruction and amusements of children may be so managed as to coincide with each other. *Play*, we have observed, is only a change of occupation: and toys, to be permanently agreeable to children, must afford them continual employment. We have declared war against *tasks*, or rather against the train of melancholy privations and constraints which, associated with this word, usually render it odious to the ears of the disgusted scholar. By kind patience, and well-timed, distinct, and above

all, by short lessons, a young child may be initiated in the mysteries of learning, and in the first principles of knowledge, without fatigue, or punishment, or tears. No matter how little be learned in a given time, provided the pupil be not disgusted; provided the wish to improve be excited, and the habits of attention be acquired. Attention we consider as the faculty of the mind which is essential to the cultivation of all its other powers.

It is essential to success in what are called accomplishments, or talents, as well as to our progress in the laborious arts or abstract sciences. Believing so much to depend upon this faculty or habit, we have taken particular pains to explain the practical methods by which it may be improved. The general maxims, that the attention of young people should at first be exercised but for very short periods; that they should never be urged to the point of fatigue; that pleasure, especially the great pleasure of success, should be associated with the exertions of the pupil; are applicable to children of all tempers. The care which has been recommended, in the use of words, to convey uniformly distinct ideas, will, it is hoped, be found advantageous. We have, without entering into the speculative question concerning the original differences of temper and genius, offered such observations as we thought might be useful in cultivating the attention of vivacious and indolent children; whether their idleness or indolence proceed from nature, or from mistaken modes of instruction, we have been anxious to point out means of curing their defects; and, from our successful experience with pupils apparently of opposite dispositions, we have ventured to assert with some confidence, that no parent should despair of correcting a child's defects: that no preceptor should despair of producing in his pupil the species of abilities which his education steadily tends to form. These are encouraging hopes, but not flattering promises. Having just opened these bright views to parents, we have paused to warn them that all their expectations, all their cares, will be in vain, unless they have sufficient prudence and strength of mind to follow a certain mode of conduct with respect to servants and with respect to common acquaintance. More failures in private education have been occasioned by the interference of servants and acquaintance, than from any other cause. It is impossible,

we repeat it in the strongest terms, it is impossible that parents can be successful in the education of their children at home, unless they have steadiness enough to resist all interference from visiters and acquaintance, who from thoughtless kindness, or a busy desire to administer advice, are apt to counteract the views of a preceptor; and who often, in a few minutes, undo the work of years. When our pupils have formed their habits, and have reason and experience sufficient to guide them, let them be left as free as air; let them choose their friends and acquaintance; let them see the greatest variety of characters, and hear the greatest variety of conversation and opinions: but while they are children, while they are destitute of the means to judge, their parents or preceptors must supply their deficient reason; and authority, without violence, should direct them to their happiness. They must see, that all who are concerned in their education, agree in the means of governing them; in all their commands and prohibitions, in the distribution of praise and blame, of reward and punishment, there must be unanimity. Where there does not exist this unanimity in families; where parents have not sufficient firmness to prevent the interference of acquaintance, and sufficient prudence to keep children *from all private communication with servants*, we earnestly advise that the children be sent to some public seminary of education. We have taken some pains to detail the methods by which all hurtful communications between children and servants, in a well-regulated family, may be avoided, and we have asserted, from the experience of above twenty years, that these methods have been found not only practicable, but easy.

In the chapters on Obedience, Temper, and Truth, the general principle, that pleasure should excite to exertion and virtue, and that pain should be connected with whatever we wish our pupils to avoid, is applied to practice with a minuteness of detail which we knew not how to avoid. Obedience we have considered as a relative, rather than as a positive, virtue: before children are able to conduct themselves, their obedience must be rendered habitual: obedience alters its nature as the pupil becomes more and more rational; and the only method to secure the obedience, the willing, enlightened obedience, of rational beings, is to convince

them, by experience, that it tends to their happiness. Truth depends upon example more than precept; and we have endeavoured to impress it on the minds of all who are concerned in education, that the first thing necessary to teach their pupils to love truth, is in their whole conduct to respect it themselves. We have reprobated the artifices sometimes used by preceptors towards their pupils; we have shown that all confidence is destroyed by these deceptions. May they never more be attempted! May parents unite in honest detestation of these practices! Children are not fools, and they are not to be governed like fools. Parents who adhere to the firm principle of truth, may be certain of the respect and confidence of their children. Children who never see the example of falsehood, will grow up with a simplicity of character, with an habitual love of truth, that must surprise preceptors who have seen the propensity to deceit which early appears in children who have had the misfortune to live with servants, or with persons who have the habits of meanness and cunning. We have advised that children, before their habits are formed, should never be exposed to temptations to deceive; that no questions should be asked them which hazard their young integrity; that as they grow older, they should gradually be trusted; and that they should be placed in situations where they may feel the advantages both of speaking truth, and of obtaining a character for integrity. The perception of the utility of this virtue to the individual and to society, will confirm the habitual reverence in which our pupils have been taught to hold it. As young people become reasonable, the nature of their habits and of their education should be explained to them; and their virtues, from being virtues of custom, should be rendered virtues of choice and reason. It is easier to confirm good habits by the conviction of the understanding, than to induce habits in consequence of that conviction. This principle we have pursued in the chapter on Rewards and Punishments; we have not considered punishment as vengeance or retaliation, but as *pain inflicted with the reasonable hope of procuring some future advantage to the delinquent or to society.* The smallest possible quantity of pain that can effect this purpose, we suppose, must, with all just and humane persons, be the measure of punishment. This notion of punishment, both for the sake

of the preceptor and pupil, should be clearly explained as early as it can be made intelligible. As to rewards, we do not wish that they should be bribes; they should stimulate, without weakening the mind. The consequences which naturally follow every species of good conduct, are the proper and best rewards that we can devise; children whose understandings are cultivated and whose tempers are not spoiled, will be easily made happy without the petty bribes which are administered daily to ill-educated, ignorant, over-stimulated, and, consequently, wretched and ill-humoured children. Far from making childhood a state of continual penance, restraint, and misery, we wish that it should be made a state of uniform happiness; that parents and preceptors should treat their pupils with as much equality and kindness as the improving reason of children justifies. The views of children should be extended to their future advantage,* and they should consider childhood as a part of their existence, not as a certain number of years which must be passed over before they can enjoy any of the pleasures of life, before they can enjoy any of the privileges of *grown-up people*. Preceptors should not accustom their pupils to what they call indulgence, but should give them the utmost degree of present pleasure which is consistent with their future advantage. Would it not be folly and cruelty to give present pleasure at the expense of a much larger portion of future pain? When children acquire experience and reason, they rejudge the conduct of those who have educated them; and their confidence and their gratitude will be in exact proportion to the wisdom and justice with which they have been governed.

It was necessary to explain at large these ideas of rewards and punishments, that we might clearly see our way in the progress of education. After having determined that our object is to obtain for our pupils the greatest possible portion of felicity; after having observed that no happiness can be enjoyed in society without the social virtues, without the *useful* and the *agreeable* qualities; our view naturally turns to the means of forming these virtues, of ensuring these essential qualities. On our sympathy with our fellow-creatures depend many of our social virtues; from our ambition to

* Emilius.

excel our competitors, arise many of our most *useful* and *agreeable* actions. We have considered these principles of action as they depend on each other, and as they are afterward separated. Sympathy and sensibility, uninformed by reason, cannot be proper guides to action. We have endeavoured to show how sympathy may be improved into virtue. Children should not see the deformed expression of the malevolent passions in the countenances of those who live with them: before the habits are formed, before sympathy has any rule to guide itself, it is necessarily determined by example. Benevolence and affectionate kindness from parents to children, first inspire the pleasing emotions of love and gratitude. Sympathy is not able to contend with passion or appetite: we should therefore avoid placing children in painful competition with one another. We love those from whom we receive pleasure. To make children fond of each other, we must make them the cause of pleasure to each other; we must place them in situations where no passion or appetite crosses their natural sympathy. We have spoken of the difference between transient, convivial sympathy, and that higher species of sympathy which, connected with esteem, constitutes friendship. We have exhorted parents not to exhaust imprudently the sensibility of their children; not to lavish caresses upon their infancy, and cruelly to withdraw their kindness when their children have learned to expect the daily stimulus of affection. The idea of exercising sensibility we have endeavoured to explain, and to show that if we require premature gratitude and generosity from young people, we shall only teach them affectation and hypocrisy. We have slightly touched on the dangers of excessive female sensibility, and have suggested that useful, active employments, and the cultivation of the reasoning faculty, render sympathy and sensibility more respectable, and not less graceful.

In treating of vanity, pride, and ambition, we have been more indulgent to vanity than our *proud* readers will approve. We hope, however, not to be misunderstood; we hope that we shall not appear to be admirers of that mean and ridiculous foible, which is anxiously concealed by all who have any desire to obtain esteem. We cannot, however, avoid thinking it is a contradiction to inspire young people with a wish to excel, and at the same

time to insist upon their repressing all expressions of satisfaction if they succeed. The desire to obtain the good opinion of others, is a strong motive to exertion: this desire cannot be discriminative in children before they have any knowledge of the comparative value of different qualities, and before they can estimate the consequent value of the applause of different individuals. We have endeavoured to show how, from appealing at first to the opinions of others, children may be led to form judgments of their own actions, and to appeal to their own minds for approbation. The sense of duty and independent self-complacency, may gradually be substituted in the place of weak, ignorant vanity. There is not much danger that young people whose understandings are improved, and who mix gradually with society, should not be able to repress those offensive expressions of vanity or pride which are disagreeable to the feelings of the "impartial spectators." We should rather let the vanity of children find its own level, than attempt any artificial adjustments; they will learn propriety of manners from observation and experience; we should have patience with their early, uncivilized presumption, lest we, by premature restraints, check the energy of the mind, and induce the cold, feeble vice of hypocrisy. In their own family, among the friends whom they ought to love and esteem, let children, with simple, unreserved vivacity, express the good opinion they have of themselves. It is infinitely better that they should be allowed this necessary expansion of self-complacency in the company of their superiors, than that it should be repressed by the cold hand of authority, and afterward be displayed in the company of inferiors and sycophants. We have endeavoured to distinguish between the proper and improper use of praise as a motive in education: we have considered it a stimulus which, like all other excitements, is serviceable or pernicious, according to the degree in which it is used, and the circumstances in which it is applied.

While we have thus been examining the general means of educating the heart and the understanding, we have avoided entering minutely into the technical methods of obtaining certain parts of knowledge. It was essential, in the first place, to show how the desire of knowledge was to be excited; what acquirements are most desirable, and how they are to be most easily ob-

tained, are the next considerations. In the chapter on Books—Classical Literature and Grammar—Arithmetic and Geometry—Geography and Astronomy—Mechanics and Chymistry—we have attempted to show how a taste for literature may early be infused into the minds of children, and how the rudiments of science, and some general principles of knowledge, may be acquired, without disgusting the pupil, or fatiguing him by unceasing application. We have, in speaking of the choice of books for children, suggested the general principles by which a selection may be safely made; and by minute, but we hope not invidious criticism, we have illustrated our principles so as to make them practically useful.

The examination of M. Condillac's Cours d'Etude was meant to illustrate our own sentiments, more than to attack a particular system. Far from intending to depreciate this author, we think most highly of his abilities; but we thought it necessary to point out some practical errors in his mode of instruction. Without examples from real life, we should have wandered, as many others of far superior abilities have already wandered, in the shadowy land of theory.

In our chapters on Grammar, Arithmetic, Mechanics, Chymistry, &c., all that we have attempted has been to recall to preceptors the difficulties which they once experienced, and to trace those early footsteps which time insensibly obliterates. How few possess, like Faruknaz in the Persian tale, the happy art of transfusing their own souls into the bosoms of others!

We shall not pity the reader whom we have dragged through Garretson's Exercises, if we can save one trembling little pilgrim from that "slough of despond." We hope that the patient, quiet mode, of teaching classical literature, which we have found to succeed in a few instances, may be found equally successful in others; we are not conscious of having exaggerated, and we sincerely wish that some intelligent, benevolent parents, may verify our experiments upon their own children.

The great difficulty which has been found in attempts to instruct children in science, has, we apprehend, arisen from the theoretic manner in which preceptors have proceeded. The knowledge that cannot be immediately applied to use, has no interest for children, has no hold upon their memories; they may learn the principles of mechanics, or geometry, or chymistry; but if they have

no means of applying their knowledge, it is quickly forgotten, and nothing but the disgust connected with the recollection of useless labour remains in the pupil's mind. It has been our object in treating of these subjects, to show how they may be made interesting to young people ; and for this purpose we should point out to them, in the daily, active business of life, the practical use of scientific knowledge. Their senses should be exercised in experiments, and these experiments should be simple, distinct, and applicable to some object in which our pupils are immediately interested. We are not solicitous about the quantity of knowledge that is obtained at any given age, but we are extremely anxious that the desire to learn should continually increase, and that whatever is taught should be taught with that perspicuity which improves the general understanding. If the first principles of science are once clearly understood, there is no danger that the pupil should not, at any subsequent period of his life, improve his practical skill, and increase his knowledge to whatever degree he thinks proper.

We have hitherto proceeded without discussing the comparative advantages of public or private education. Whether children are to be educated at home or to be sent to public seminaries, the same course of education, during the first years of their lives, should be pursued ; and the preparatory care of parents is essential to the success of the public preceptor. We have admitted the necessity of public schools, and, in the present state of society, we acknowledge that many parents have it not in their power properly to superintend the private education of a family. We have earnestly advised parents not to attempt private education without first calculating the difficulties of the undertaking ; we have pointed out that, by co-operating with the public instructer, parents may assist in the formation of their children's characters, without undertaking the sole management of their classical instruction. A private education, upon a calm survey of the advantages of both systems, we prefer, because more is in the power of the private than of the public instructer. One uniform course of experience may be preserved, and no examples but those which we wish to have followed, need be seen by those children who are brought up at home. When we give our opinion in favour of private educa-

tion, we hope that all we have said on servants and on acquaintance will be full in the reader's recollection. No private education, we repeat it, can succeed without perfect unanimity, consistency, and steadiness, among all the individuals in the family.

We have recommended to parents the highest liberality as the highest prudence, in rewarding the care of enlightened preceptors. Ye great and opulent parents, condescend to make your children happy: provide for yourselves the cordial of domestic affection against "that sickness of long life—old age."

In what we have said of governesses, masters, and the value of female accomplishments, we have considered not only what is the fashion of to-day, but rather what is likely to be the fashion of ten or twenty years hence. Mothers will look back, and observe how much the system of female education has altered within their own memory; and they will see, with "the prophetic eye of taste," what may probably be the fashion of another spring—another race.* We have endeavoured to substitute the words *domestic happiness* instead of the present terms, "success in the world—fortunate establishments," &c. This will lead, perhaps, at first, to some confusion in the minds of those who have been long used to the old terms; but the new vocabulary has its advantages; the young and unprejudiced will, perhaps, perceive them, and maternal tenderness will calculate with more precision, but not with less eagerness, the chances of happiness according to the new and old tables of interest.

Sectary-metaphysicians, if any of this description should ever deign to open a book that has a *practical* title, will, we fear, be disappointed in our chapters on Memory—Imagination and Judgment. They will not find us the partisans of any system, and they will probably close the volume with supercilious contempt. We endeavour to console ourselves by the hope, that men of sense and candour will be more indulgent, and will view with more complacency an attempt to collect from all metaphysical writers, those observations which can be immediately of practical use in education. Without any pompous pretensions, we have given a sketch of what we have been able to understand and ascertain of

* "Another spring, another race supplies."—POPE's *Homer*.

the history of the mind. On some subjects, the wisest of our readers will at least give us credit for knowing that we are ignorant.

We do not set that high value upon Memory, which some preceptors are inclined to do. From all that we have observed, we believe that few people are naturally deficient in this faculty; though in many it may have been so injudiciously cultivated as to induce the spectators to conclude, that there was some original defect in the retentive power. The recollective power is less cultivated than it ought to be, by the usual modes of education; and this is one reason why so few pupils rise above mediocrity. They lay up treasures for moths to corrupt; they acquire a quantity of knowledge, they learn a multitude of words by rote, and they cannot produce a single fact, or a single idea, in the moment when it is wanted: they collect, but they cannot combine. We have suggested the means of cultivating the inventive faculty at the same time that we store the memory; we have shown, that on the order in which ideas are presented to the mind, depends the order in which they will recur to the memory; and we have given examples from the histories of great men and little children, of the reciprocal assistance which the memory and the inventive powers afford each other.

In speaking of Taste, it has been our wish to avoid prejudice and affectation. We have advised that children should early be informed that the principles of taste depend upon casual, arbitrary, variable associations. This will prevent our pupils from falling into the vulgar error of being amazed and *scandalized* at the tastes of other times and other nations. The beauties of nature and the productions of art, which are found to be most generally pleasing, we should associate with pleasure in the mind: but we ought not to expect that children should admire those works of imagination which suggest, instead of expressing, ideas. Until children have acquired the language, until they have all the necessary trains of ideas, many of the finest strokes of genius in oratory, poetry, and painting, must to them be absolutely unintelligible.

In a moral point of view, we have treated of the false associations which have early influence upon the imagination, and produce the furious passions and miserable vices. The false associations which first inspire the

young and innocent mind with the love of wealth, of power, or what is falsely called pleasure, are pointed out; and some practical hints are offered to parents, which it is hoped may tend to preserve their children from these moral insanities.

We do not think that persons who are much used to children, will quarrel with us for what we have said of early prodigies of wit. People who merely talk to children for the amusement of the moment, may admire their "lively nonsense," and will probably think the simplicity of the mind that we prefer, downright stupidity. The habit of reasoning is seldom learned by children who are much taken notice of for their sprightly repartees; but we have observed that children, after they have learned to reason, as they grow up and become acquainted with the manners and customs of the world, are by no means deficient in talents for conversation, and in that species of wit which depends upon the perception of analogy between ideas, rather than a play upon words. At all events, we would rather that our pupils should be without the brilliancy of wit, than the solid and essential power of judgment.

To cultivate the judgment of children, we must begin by teaching them accurately to examine and compare such external objects as are immediately obvious to their senses; when they begin to argue, we must be careful to make them explain their terms and abide by them. In books and conversation, they must avoid all bad reasoning, nor should they ever be encouraged in the quibbling habit of arguing for victory.

Prudence we consider as compounded of judgment and resolution. When we teach children to reflect upon and compare their own feelings, when we frequently give them their *choice* in things that are interesting to them, we educate them to be prudent. We cannot teach this virtue until children have had some experience; as far as their experience goes, their prudence may be exercised. Those who reflect upon their own feelings, and find out exactly what it is that makes them happy, are taught wisdom by a very few distinct lessons. Even fools, it is said, grow wise by experience, but it is not until they grow old under her rigid discipline.

Economy is usually understood to mean prudence in the management of money: we have used this word in

a more enlarged sense. Children, we have observed, may be economic of any thing that is trusted to their charge; until they have some use for money, they need not be troubled or tempted with it: if all the necessaries and conveniences of life are provided for them, they must spend whatever is given to them as pocket-money, in superfluities. This habituates them early to extravagance. We do not apprehend that young people should be intrusted with money, till they have been some time used to manage the money business of others. They may be taught to keep the accounts of a family, from which they will learn the price and value of different commodities. All this, our readers will perceive, is nothing more than the application of the different reasoning powers to different objects.

We have thus slightly given a summary of the chapters in the preceding work, to recall the whole in a connected view to the mind; a few simple principles run through the different parts; all the purposes of practical education tend to one distinct object; to render our pupils good and wise, that they may enjoy the greatest possible share of happiness at present and in future.

Parental care and anxiety, the hours devoted to the instruction of a family, will not be thrown away; if parents have the patience to wait for their reward, that reward will far surpass their most sanguine expectations: they will find in their children agreeable companions, sincere and affectionate friends. Whether they live in retirement or in the busy world, they will feel their interest in life increase, their pleasures multiplied by sympathy with their beloved pupils; they will have a happy home. How much is comprised in that single expression! The gratitude of their pupils will continually recall to their minds the delightful reflection, that the felicity of their whole family is their work; that the virtues and talents of their children are the necessary consequences of good education.

NOTES,

CONTAINING CONVERSATIONS AND ANECDOTES OF CHILDREN.

Several years ago a mother,* who had a large family to educate, and who had turned her attention with much solicitude to the subject of education, resolved to write notes from day to day of all the trifling things which mark the progress of the mind in childhood. She was of opinion, that the art of education should be considered as an experimental science, and that many authors of great abilities had mistaken their road by following theory instead of practice. The title of "*Practical Education*," was chosen by this lady, and prefixed to a little book for children, which she began, but did not live to finish. The few notes which remain of her writing are preserved, not merely out of respect to her memory, but because it is thought that they may be useful. Her plan of keeping a register of the remarks of children, has at intervals been pursued in her family; a number of these anecdotes have been interspersed in this work; a few, which did not seem immediately to suit the didactic nature of any of our chapters, remain, and with much hesitation and diffidence are offered to the public. We have selected such anecdotes as may

* Mrs. Honora Edgeworth, daughter of Edward Sneyd, Esq. of Litchfield. As this lady's name has been mentioned in a monody on the death of Major André, we take this opportunity of correcting a mistake that occurs in a note to that performance.

"Till busy rumour chas'd each pleasing dream,
And quench'd the radiance of the silver beam."
Monody on Major André.

The note on these lines is as follows:—

"The tidings of Honora's marriage. Upon that event Mr. André quitted his profession as a merchant, and joined our army in America."

Miss Honora Sneyd was married to Mr. Edgeworth in July, 1773, and the date of Major André's first commission in the Welch Fusiliers is March 4th, 1771.

in some measure illustrate the principles that we have endeavoured to establish; and we hope, that from these trifling but genuine conversations of children and parents, the reader will distinctly perceive the difference between practical and theoretic education. As some farther apology for offering them to the public, we recur to a passage in Dr. Reid's* Essays, which encourages an attempt to study minutely the minds of children.

"If we could obtain a distinct and full history of all that hath passed in the mind of a child from the beginning of life and sensation till it grows up to the use of reason, how its infant faculties began to work, and how they brought forth and ripened all the various notions, opinions, and sentiments, which we find in ourselves when we come to be capable of reflection, this would be a treasure of natural history which would probably give more light into the human faculties, than all the systems of philosophers about them, from the beginning of the world."

The reader, we hope, will not imagine that we think we can present him with this treasure of natural history; we have only a few scattered notices, as Bacon would call them, to offer: perhaps, even this slight attempt may awaken the attention of persons equal to the undertaking: if able preceptors and parents would pursue a similar plan, we might, in time, hope to obtain a full history of the infant mind.

It may occur to parents, that writing notes of the remarks of children would lessen their freedom and simplicity in conversation; this would certainly be the case if care were not taken to prevent the pupils from thinking of the *notebook*.† The following notes were never seen by the children who are mentioned in them; and though it was in general known in the family that such notes were taken, the particular remarks that were written down, were never known to the pupils: nor was any curiosity excited upon this subject. The attempt would have been immediately abandoned, if we had perceived that it produced any bad consequences. The

* This has been formerly quoted in the preface to the Parent's Assistant.

† The anecdotes mentioned in the *preceding* pages, were read to the children with the rest of the work.

simple language of childhood has been preserved without alteration in the following notes; and as we could not devise any better arrangement, we have followed the order of time, and we have constantly inserted the ages of the children, for the satisfaction of preceptors and parents, to whom alone these infantine anecdotes can be interesting: We say nothing farther as to their accuracy: if the reader does not see in the anecdotes themselves internal marks of veracity, all we could say would be of no avail.

X—— (a girl of five years old) asked why a piece of paper fell quickly to the ground when rumpled up, and why so slowly when opened.

Y—— (a girl of three years and a half old), seeing her sister taken care of and nursed when she had chilblains, said that she wished to have chilblains.

Z—— (a girl between two and three), when her mother was putting on her bonnet, and when she was going out to walk, looked at the cat, and said with a plaintive voice, "Poor pussey; you have no bonnet, pussey!"

X—— (five years old) asked why she was as tall as the trees when she was far from them.

Z—— (four years old) went to church, and when she was there, said, "Do those men do every thing better than we, because they talk so loud, and I think they read."

It was a country church, and people sang; but the child said, "She thought they didn't sing, but roared because they were shut up in that place, and didn't like it."

L—— (a boy between three and four years old) was standing before a grate with coals in it, which were not lighted; his mother said to him, "What is the use of coals?"

L——. "To put in your grate."

Mother. "Why are they put there?"

L——. "To make fire."

Mother. "How do they make fire?"

L——. "Fire is brought to them."

Mother. "How is fire brought to them?"

L——. "Fire is brought to them upon a candle, and put to them."

L——, a little while afterward, asked leave to light a candle; and when a bit of paper was given to him for that purpose, said, "But, mother, may I take some light out of your fire to put to it?"

This boy had more exact ideas of property than Prometheus had.

Z——, when she was between five and six, said, "Water keeps things alive, and eating keeps alive children."

Z—— (same age), meddling with a fly, said, "she did not hurt it."—"Were you ever a fly?" said her mother. "Not *that I know of*," answered the child.

Z——'s father sent her into a room where there were some knives and forks. "If you meddle with them," said he, "you may cut yourself."

Z——. "I won't cut myself."

Father. "Can you be sure of that?"

Z——. "No, but I can take care."

Father. "But if you should cut yourself, would it do you any good?"

Z——. "No—Yes."

Father. "What good?"

Z——. "Not to do so another time."

—— (same age.) Z——'s mother said to her, "Will you give me some of your fat cheeks?"

Z——. "No, I cannot, it would hurt me."

Mother. "But if it would not hurt you, would you give me some?"

Z——. "No, it would make two holes in my cheeks that would be disagreeable."

A sentimental mother would, perhaps, have been displeased with the simple answers of this little girl. (See Sympathy and Sensibility.)

The following memorandums of Mrs. H—— E—— (dated 1779), have been of great use to us in our chapter upon Toys.

"The playthings of children should be calculated to fix their attention, that they may not get a habit of doing any thing in a listless manner.

"There are periods as long as two or three months at a time, in the lives of young children, when their bodies appear remarkably active and vigorous, and their minds dull and inanimate; they are at these times incapable of comprehending any new ideas, and forgetful of those they have already received. When this disposition to exert the bodily faculties subsides, children show much restlessness and distaste for their usual plays. The intervals between meals appear long to them; they ask a multitude of questions, and are continually looking for-

ward to some future good; if at this time any mental employment be presented to them, they receive it with the utmost avidity, and pursue it with assiduity; their minds appear to have acquired additional powers from having remained inactive for a considerable time."

(January, 1781.) Z——. (seven years old.) "What are bones made of? My father says it has not been found out. If I should find it out, I shall be wiser in that respect than my father."

(April 8th.) Z——. "What becomes of the blood when people die?"

Father. "It stays in the body."

Z——. "I thought it went out of the body; because you told me, that what we eat was turned into blood, and that blood nourished the body and kept it alive."

Father. "Yes, my dear; but blood must be in motion to keep the body alive; the heart moves the blood through the arteries and veins, and the blood comes back again to the heart. We don't know how this motion is performed. What we eat is not turned at once into blood; it is dissolved by something in the stomach, and is turned into something white like milk, which is called chyle; the chyle passes through little pipes in the body, called lacteals, and into the veins and arteries, and becomes blood. But I don't know how. I will show you the inside of the body of a dead pig: a pig's inside is something like that of a man."

Z—— (same age), when her father had given her an account of a large stone that was thrown to a considerable distance from Mount Vesuvius at the time of an eruption, asked, how the air could keep a large stone from falling, when it would not support her weight.

Z—— (same age), when she was reading the Roman history, was asked, what she thought of the conduct of the wife of Asdrubal. Z—— said she did not like her. She was asked why. The first reason Z—— gave for not liking the lady, was, "that she spoke loud;" the next, "that she was unkind to her husband, and killed her children."

We regret (though perhaps our readers may rejoice) that several years elapsed in which these little notes of the remarks of children were discontinued. In 1792 the following notes were begun by one of the same family.

(March, '92.) Mr. —— saw an Irish giant at Bristol, and when he came home, Mr —— gave his children a

description of the giant. His height, he said, was about eight feet. *S*—— (a boy of five years old) asked whether this giant had lived much longer than other men.

Father. "No; why did you think he had lived longer than other men?"

S——. "Because he was so much taller."

Father. "Well."

S——. "And he had so much more time to grow."

Father. "People, after a certain age, do not grow any more. Your sister M——, and I, and your mother, have not grown any taller since you can remember, have we?"

S——. "No; but I have, and B——, and C——."

Father. "Yes; you are children. While people are growing, they are children; after they have done growing, they are called men and women."

(April, '92.) At tea-time, to-day, somebody said that hot chocolate scalds worse than hot tea or hot water. Mr. —— asked his children if they could give any reason for this. They were silent.

Mr. ——. "If water be made as hot as it can be made, and if chocolate be made as hot as it can be made, the chocolate will scald you the most. Can you tell me why?"

C——. (a girl between eight and nine years old.) "Because there is oil, I believe, in the chocolate; and because it is thicker, and the parts closer together, than in tea or water."

Father. "What you say is true; but you have not explained the reason yet. Well, *H*——."

H——. (a boy between nine and ten.) "Because there is water in the bubbles."

Father. "Water in the bubbles? I don't understand. Water in what bubbles?"

H——. "I thought I had always seen, when water boils, that there are a great many little bubbles upon the top."

Father. "Well; but what has that to do with the question I asked you?"

H——. "Because the cold air that was in the bubbles would cool the water next them, and then"—(he was quite confused, and stopped.)

B—— (a girl of ten or eleven years old) spoke next. "I thought that chocolate was much thicker than water,

and there were more parts, and those parts were closer together, and each could hold but a certain quantity of heat; and therefore chocolate could be made hotter than water."

Father. "That is a good chymical idea. You suppose that the chocolate and tea can be *saturated* with heat. But you have none of you yet told the reason."

The children were all silent.

Father. "Can water ever be made hotter than boiling hot?"

B——. "No."

Father. "Why?"

B——. "I don't know."

Father. "What happens to water when it does what we call *boil?*"

H——. "It bubbles, and makes a sort of noise."

B——. "It turns into steam or vapour, I believe."

Father. "All at once?"

B——. "No: but what is at the top, first."

Father. "Now you see the reason why water can't be made hotter than boiling hot: for if a certain degree of heat be applied to it, it changes into the form of vapour, and flies off. When I was a little boy, I was once near having a dreadful accident. I had not been taught the nature of water, and steam, and heat, and evaporation; and I wanted to fill a wet hollow stick with melted lead. The moment I poured the lead into the stick, the water in the wood turned into vapour suddenly, and the lead was thrown up with great violence to the ceiling: my face narrowly escaped. So you see people should know what they are about before they meddle with things.—But now as to the chocolate."

No one seemed to have any thing to say about the chocolate.

Father. "Water, you know, boils with a certain degree of heat. Will oil, do you think, boil with the same heat?"

C——. "I don't understand."

Father. "In the same *degree of heat* (you must learn to accustom yourself to those words, though they seem difficult to you)—in the same heat, do you think water or oil would boil the soonest?"

None of the children knew.

Father. "Water would boil the soonest. More heat is necessary to make oil boil, or turn into vapour, than

to make water evaporate. Do you know of any thing which is used to *determine*, to *show*, and *mark* to us the different degrees of heat?"

B——. "Yes; a thermometer."

Father. "Yes: thermometer comes from two Greek words, one of which signifies heat, and the other measure. Meter, means measure. Thermo*meter* a measurer of heat; baro*meter*, a measurer of the weight of the air; hygro*meter*, a measurer of moisture. Now, if you remember, on the thermo*meter* you have seen these words at a certain mark, *the heat of boiling water*. The quicksilver in a thermometer, rises to that mark when it is exposed to that degree of heat which will make the water turn into vapour. Now the degree of heat which is necessary to make oil evaporate, is not marked on the thermometer; but it requires several degrees more heat to evaporate oil, than is necessary to evaporate water. So now you know that chocolate, containing more oil than is contained in tea, must be made hotter before it turns into vapour."

Children may be led to acquire a taste for chymistry by slight hints in conversation.

(July 22d, 1794.) *Father*. "S——, can you tell me what is meant by a body's falling?"

S—— (seven years old.) "A body's falling, means a body's dying, I believe."

Father. "By *body*, I don't mean a person, but any thing. What is meant by any thing's falling?"

S——. "Coming down from a high place."

Father. "What do you mean by high place?"

S——. "A place higher than places usually are; higher than the ground."

Father. "What do you mean by the ground?"

S——. "The earth."

Father. "What shape do you think the earth is?"

S——. "Round."

Father. "Why do you think it is round?"

S——. "Because I have heard a great many people say so."

Father. "The shadow.—It is so difficult to explain to you, my dear, why we think that the earth is round, tha I will not attempt it *yet*."

It is better, as we have often observed, to avoid al *imperfect* explanations, which give children confuse ideas.

(August 18th, 1794.) Master —— came to see us, and taught S—— to fish for minnows. It was explained to S——, that fishing with worms for bait, tortures the worms. No other argument was used, no sentimental exclamations made upon the occasion; and S—— fished no more, nor did he ever mention the subject again.

Children sometimes appear cruel, when in fact they do not know that they give pain to animals.

(July 27th, 1794.) S—— saw a beautiful rainbow, and he said, "I wish I could walk over that fine arch."

This is one of the pleasures of Ariel, and of the Sylphs in the Rape of the Lock. S—— was not praised for a poetic wish, lest he should learn affectation.

(September 3d, 1794.) Mr. —— attempted to explain to B——, H——, S——, and C——, the nature of ensurance, and the day afterward he asked them to explain it to him. They none of them understood it, except B——, who could not, however, explain it, though she did understand it. The terms were all new to them, and they had no ships to ensure.

(September 19th.) At dinner to-day, S—— (seven years old) said to his sister C——, "What is the name of that man that my father was talking to, that sounded like Idem, Isdal, or Izard, I believe."—"Izard!" said somebody at table, "that name sounds like Lizard; yes, there is a family of the Lizards in the Guardian."

S——. "A real family?"

Mr. ——. "No, my dear: a name given to supposed characters."

M——. "Wasn't it one of the young Lizards who would prove to his mother, when she had just scalded her fingers with boiling water out of the tea-kettle, that there's no more heat in fire that heats you, than pain in the stick that beats you?"

Mr. ——. "Yes; I think that character has done harm; it has thrown a ridicule upon metaphysical disquisitions."

Mrs. ——. "Are not those lines about the pain in the stick in the 'Letter* to my Sisters at Crux Easton,' in Dodsley's poems?"

Mr. ——. "Yes; but they come originally from Hudibras, you know."

In slight conversations, such as these, which are not

* Soame Jenyns's.

contrived for the purpose, the curiosity of children is awakened to literature; they see the use which people make of what they read, and they learn to talk freely about what they meet with in books. What a variety of thoughts came in a few instants from S——'s question about *Idem!*

(November 8th, 1795.) Mr. —— read the first chapter of Hugh Trevor to us; which contains the history of a passionate farmer, who was in a rage with a goose because it would not eat some oats which he offered it. He tore off the wings of the animal, and twisted off its neck; he bit off the ear of a pig, because it squealed when he was ringing it; he ran at his apprentice, Hugh Trevor, with a pitchfork, because he suspected that he had drunk some milk; the pitchfork stuck in a door. Hugh Trevor then told the passionate farmer, that the dog Jowler had drunk the milk, but that he would not tell this before, because he knew his master would hang the dog.

S—— admired Hugh Trevor for this extremely.

The farmer, in his lucid intervals, is extremely penitent, but his fit of rage seizes him again one morning, when he sees some milk boiling over. He flies at Hugh Trevor, and stabs him with a claspknife with which he had been cutting bread and cheese; the knife is stopped by half a crown which Hugh Trevor had sewed in his waistcoat; *this half crown he had found on the highway a few days before.*

It was doubted by Miss M. S——, whether this last was a proper circumstance to be told to children, because it might lead them to be dishonest.

The evening after Mr. —— had read the story, he asked S—— to repeat it to him. S—— remembered it, and told it distinctly till he came to the half crown; at this circumstance he hesitated. He said he did not know how Hugh Trevor "*came to keep it*," though he had found it. He wondered that Hugh Trevor did not ask about it.

Mr. —— explained to him, that when a person finds any thing upon the highway, he should put it into the hand of the public crier, who should *cry it.* Mr. —— was not quite certain whether the property found on the high road, after it has been *cried* and no owner appears, belongs to the king, or to the person who finds it. Blackstone's Commentaries were consulted; the passage

concerning *Treasuretrove* was read to S——; it is written in such distinct language, that he understood it completely.

Young people may acquire much knowledge by consulting books, at the moment that any interest is excited by conversation upon particular subjects.

Explanations about the *law* were detailed to S——, because he was intended for a lawyer. In conversation we may direct the attention of children to what are to be their professional studies, and we may associate entertainment and pleasure with the idea of their future profession.

The story of the passionate farmer in Hugh Trevor was thought to be a good lesson for children of vivacious tempers, as it shows to what crimes excess of passion may transport. This man appears an object of compassion; all the children felt a mixture of pity and abhorrence when they heard the history of his decease.

(November 23d, 1795.) This morning at breakfast Miss —— observed, that the inside of the cream cover, which was made of black Wedgwood's ware, looked brown and speckled, as if the glazing had been worn away; she asked whether this was caused by the cream. One of the company immediately exclaimed, "Oh, I have heard that Wedgwood's ware won't hold oil." Mr. —— observed, that it would be best to try the experiment, instead of resting content with this hearsay evidence; he asked H—— and S—— what would be the best method of trying the experiment exactly.

S—— proposed to pour oil into a vessel of Wedgwood's ware, and to measure the depth of the oil when first put in; to leave the oil in the vessel for some time, and then to measure again the depth of the oil.

H—— said, "I would weigh the Wedgwood's ware vessel; then pour oil into it again; then I would leave the oil in the vessel for some time, and afterward I would pour out the oil, and would weigh the vessel to see if it had gained any weight; and then weigh the oil to find out whether it had lost any weight since it was put into the vessel." H——'s scheme was approved.

A black Wedgwood's ware saltcellar was weighed in accurate scales; it weighed 1196 grains; 110 grains of oil were poured into it; total weight of the saltcellar and oil, 1306 grs. Six months afterward, the saltcellar was produced to the children, who were astonished to

perceive that the oil had disappeared. The lady who had first asserted that Wedgwood's ware would not hold oil, was inclined to believe that the oil had oozed through the pores of the saltcellar; but the little spectators thought it was more probable that the oil might have been accidentally spilled; the saltcellar weighed as before, 1196 grains.

The experiment was repeated, and this time it was resolved to lock up the saltcellar, that it might not again be thrown down.

(April 14th, 1796.) Into the same saltcellar 100 grains weight of oil was poured (total weight, 1296 grains). The saltcellar was put on a saucer, and covered with a glass tumbler. (June 3d, 1796.) Mr. —— weighed the saltcellar, and found that with the oil it weighed precisely the same as before, 1296 grains; without the oil, 1196 grains, its original weight: therefore it was clear that the Wedgwood's ware had neither imbibed the oil, nor let it pass through its pores.

This little experiment has not been thus minutely told for philosophers, but for children; however trivial the subject, it is useful to teach children early to try experiments. Even the weighing and calculating in this experiment amused them, and gave some ideas of the exactness necessary to prove any fact.

(Dec. 1st, 1795.) S—— (8 years old), in reading Gay's fable of "the painter who pleased everybody and nobody," was delighted to hear that the painter put his palette upon his thumb, because S—— had seen a little palette of his sister A——'s, which she used to put on her thumb. S—— had been much amused by this, and he was very fond of this sister, who had been absent for some time. Association makes slight circumstances agreeable to children; if we do not know these associations, we are surprised at their expressions of delight. It is useful to trace them. (See Chapter on Imagination.)

S—— seemed puzzled when he read that the painter "dipped his pencil, talked of *Greece*."—"Why did he talk of Greece?" said S—— with a look of astonishment. Upon inquiry, it was found that S—— mistook the word *Greece* for *Grease!*

It was explained to him, that Grecian statues and Grecian figures are generally thought to be particularly

graceful and well executed; that, therefore, painters attend to them.

(Dec. 1st, 1795.) After dinner to-day, S—— was looking at a little black toothpick-case of his father's; his father asked him if he knew what it was made of.

The children guessed different things; wood, horn, bone, paper, pasteboard, glue.

Mr. ——. "Instead of examining the toothpick-case, S——, you hold it in your hand, and turn your eyes away from it, that you may think the better. Now, when I want to find out any thing about a particular object, I keep my eye fixed upon it. Observe the texture of that toothpick-case, if you want to know the materials of which it is made; look at the edges, feel it."

S——. "May I smell it?"

Mr. ——. "Oh yes. You may use all your senses."

S——. (feeling the toothpick-case, smelling it, and looking closely at it.) "It is black, and smooth, and strong, and light. What is, let me see, both strong and light, and it will bend—parchment."

Mr. ——. "That is a good guess; but you are not quite right yet. What is parchment? I think by your look that you don't know."

S——. "Is it not paper pasted together?"

Mr. ——. "No; I thought you mistook pasteboard for parchment."

S——. "Is parchment skin?"

Mr. ——. "Of what?"

S——. "Animals."

Mr. ——. "What animal?"

S——. "I don't know."

Mr. ——. "Parchment is the skin of sheep."

"But S——, don't keep the toothpick-case in your hand, push it round the table to your neighbours, that everybody may look again before they guess. I think, for certain reasons of my own, that H—— will guess right."

H——. "Oh, I know what it is now!"

H—— had lately made a pump, the piston of which was made of leather; the leather had been wet, and then forced through a mould of the proper size. H—— recollected this, as Mr. —— thought he would, and guessed that the case might have been made of leather, and by a similar process.

S——. "Is it made of the skin of some animal?"

Mr. ——. "Yes; but what do you mean by the skin of some animal? What do you call it?"

S——. (laughing.) "Oh, leather! leather!"

H——. "Yes, it's made in the same way that the piston of my pump is made, I suppose."

M——. "Could not shoes be made in the same manner in a mould?"

Mr. ——. "Yes; but there would be one disadvantage: the shoes would lose their shape as soon as they were wet; and the sole and upper leather must be nearly of the same thickness."

S——. "Is the toothpick-case made out of any particular kind of leather? I wish I could make one!"

M——. "You have a bit of green leather, will you give it to me? I'll punch it out like H——'s piston; but I don't exactly know how the toothpick-case was made into the right shape."

Mr. ——. "It was made in the same manner in which silver pencil-cases and thimbles are made. If you take a thin piece of silver, or of any ductile material, and lay it over a concave mould, you can readily imagine that you can make the thin, ductile material, take the shape of any mould into which you put it; and you may go on forcing it into moulds of different depths, till at last the plate of silver will have been shaped into a cylindrical form; a thimble, a pencil-case, a toothpick-case, or any similar figure."

We have observed (See Mechanics) that children should have some general idea of mechanics before they go into the large manufactories; this can be given to them from time to time in conversation, when little circumstances occur which *naturally* lead to the subject.

(November 30th, 1795). S—— said he liked the beginning of Gay's fable of "The man and the flea," very much, but he could not tell what was meant by the crab's crawling beside the *coral grove*, and hearing the ocean roll *above*. "The ocean cannot roll *above*, can it, mother?"

Mother. "Yes, when the animal is crawling below, he hears the water rolling above him."

M——. "Coral groves mean the branches of coral which look like trees; you saw some at Bristol in Mr. B——'s collection."

The difficulty *S*—— found in understanding "coral groves," confirms what has been observed, that children

should never read poetry without its being thoroughly explained to them. (See Chapter on Books.)

(January 10th, 1795.) *S*—— (8 years old) said that he had been thinking about the wind; and he believed that it was the earth's turning round that made the wind.

M——. "Then how comes it that the wind does not blow always the same way?"

S—— "Ay, that's the thing I can't make out; besides, perhaps the air would stick to the earth as it turns round, as thread sticks to my spinning top, and go round with it."

(January 4th, 1795.) As we were talking of the king of Poland's little dwarf, S—— recollected by contrast the Irish giant whom he had seen at Bristol. "I liked the Irish giant very much, because," said S—— "though he was so large, he was not surly; and when my father asked him to take out his shoebuckle to try whether it would cover my foot, he did not seem in a hurry to do it. I suppose he did not wish to show how little I was."

Children are nice observers of that kind of politeness which arises from good-nature; they may hence learn what really pleases in manners, without being taught grimace.

Dwarfs and giants led us to Gulliver's Travels. S—— had never read them, but one of the company now gave him some general account of Lilliput and Brobdignag. He thought the account of the little people more entertaining than that of the large ones; the carriage of Gulliver's hat by a team of Lilliputian horses, diverted him; but, when he was told that the queen of Brobdignag's dwarf stuck Gulliver one day at dinner into a marrowbone, S—— looked grave, and seemed rather shocked than amused; he said, "It must have almost suffocated poor Gulliver, and must have spoiled his clothes." S—— wondered of what cloth they could make him new clothes, because the cloth in Brobdignag must have been too thick, and as thick as a board. He also wished to know what sort of glass was used to glaze the windows in Gulliver's wooden house: "because," said he, "their common glass must have been so thick that it would not have been transparent to Gulliver." He thought that Gulliver must have been extremely afraid of setting his small wooden house on fire.

M——. "Why more afraid than we are? his house was as large for Gulliver as our house is for us."

S——. "Yes, but what makes the fire must have been so *much* larger! One cinder, one spark of theirs, would have filled his little grate. And how did he do to read their books?"

S—— was told that Gulliver stood at the topmost line of the page, and ran along as fast as he read, till he got to the bottom of the page. It was suggested that Gulliver might have used a diminishing glass. S—— immediately exclaimed, "How entertaining it must have been to him to look through their telescopes." An instance of invention arising from *contrast*.

If the conversation had not here been interrupted, S—— would probably have invented a greater variety of pleasures and difficulties for Gulliver; his eagerness to read Gulliver's Travels, was increased by this conversation. We should let children exercise their invention upon all subjects, and not tell them the whole of every thing, and all the ingenious parts of a story. Sometimes they invent these, and are then interested to see how the *real* author has managed them. Thus, children's love for literature may be increased, and the activity of their minds may be exercised. "Le secret d'ennuyer," says an author* who never tires us, "Le secret d'ennuyer est celui de tout dire." This may be applied to the art of education. (See Attention, Memory and Invention.)

(January 17th, 1796.) S——. "I don't understand about the tides."

H——. (thirteen years old.) "The moon, when it comes near the earth, draws up the sea by the middle, attracts it, and, as the middle rises, the water runs down from that again into the channels of rivers."

S——. "But—Hum!—the moon attracts the sea; but why does not the sun attract it by the middle as well as the moon? How can you be sure that it is the moon that does it?"

Mr. ——. "We are not sure that the moon is the cause of tides."

We should never force any system upon the belief of children; but wait till they can understand all the arguments on each side of the question.

(January 18th, 1796.) S—— (nine years old.) "Father, I have thought of a reason for the wind's blowing."

* Voltaire.

"When there has been a hot, sunshiny day, and when the ground has been wet, the sun attracts a great deal of vapour: then *that* vapour must have room, so it must push away some air to make room for itself; besides, vapour swells with heat, so it must have a *great*, *great* deal of room as it grows hotter and hotter; and the moving the air to make way for it must make wind."

It is probable, that if children are not early taught by rote words which they cannot understand, they will *think* for themselves; and, however strange their incipient theories may appear, there is hope for the improvement of children as long as their minds are active.

(February 13th, 1796.) S——. "How do physicians try new medicines? If they are not sure they will succeed, they may be hanged for murder, mayn't they? It is cruel to try *them* (*them* meant medicines) on animals; besides, all animals are not the same as men. A pig's inside is the most like that of a man. I remember my father showed us the inside of a pig once."

Some time afterward, S—— inquired what was meant by the circulation of the blood. "How are we sure that it does move? You told me that it doesn't move after we die, then nobody can have seen it really moving in the veins; that beating that I feel in my pulse does not feel like any thing running backward and forward; it beats up and down."

The lady to whom S—— addressed these questions and observations, unfortunately, could not give him any information upon this subject, but she had at least the prudence, or honesty, to tell the boy that "she did not know any thing about the matter."

S—— should have been shown the circulation of the blood in fishes; which he might have seen by a microscope.

Children's minds turn to such inquiries: surely, if they are intended for physicians, these are the moments to give them a taste for their future profession, by associating pleasure with instruction, and connecting with the eagerness of curiosity the hope of making discoveries; a hope which all vivacious young people strongly feel.

(February 16th.) S—— objected to that fable of Phædrus in which it is said that a boy threw a stone at Æsop, and that Æsop told the boy to throw a stone at another passenger, pointing to a rich man. The boy

did as Æsop desired, and the rich man had the boy hanged.

S—— said that he thought that Æsop should have been hanged, because Æsop was the cause of the boy's fault.

How little suited *political* fables are to children. This fable, which was meant to show, we suppose, that the *rich* could not, like the poor, be insulted with impunity, was quite unintelligible to a boy (nine years old) of *simple* understanding.

(July 19th, 1796.) Among "*Vulgar errors*," Sir Thomas Browne might have mentioned the common notion, that if you take a hen and hold her head down to the ground, and draw a circle of chalk round her, she will be enchanted by this magical operation so that she cannot stir. We determined to try the experiment; for which Dr. Johnson would have laughed at us, as he laughed at Browne* for trying "*the hopeless experiment*" about the magnetic dials.

A hen's head was held down upon a stone flag, and a chalk line was drawn before her; she did not move. The same hen was put into a circle of chalk that had been previously drawn for her reception; her head was held down according to the letter of the charm, and she did not move; line or circle apparently operated alike. It was suggested (by A——) that perhaps the hen was frightened by her head being held down to the ground, and that the chalk line and circle had nothing to do with the business. The hen was carried out of sight of the magic line and circle, her head was held down to the ground as before; and when the person who had held her gently withdrew his hand, she did not move. She did not, for some instants, recover from her terror; or, perhaps, the feeling of pressure seemed to her to remain upon her head after the hand was withdrawn.

Children who are accustomed to *doubt*, and to try experiments, will not be dupes to "Vulgar errors."

(July 20th, 1796.) S—— (between nine and ten), when he heard a lady propose to make use of a small glass tumbler to hold pomatum, made a face expressive of great disgust; he was begged to give a reason for his dislike. S—— said it appeared to him dirty and disa-

* See Johnson's Life of Browne.

greeable to put pomatum into a tumbler out of which we are used to drink wine or water.

We have observed (See Chapter on Taste and Imagination), that children may early be led to reflect upon the cause of their tastes.

(July 24th, 1796.) S—— observed that "the lachrymal sack is like Aboulcasem's cup, (in the Persian tales.) It is emptied and fills again of itself; though it is emptied ever so often, it continues full."

The power of reasoning had been more cultivated in S—— than the taste for wit or allusion; yet it seems his mind was not defective in that quickness of seizing resemblances which *may* lead to wit. He was not praised for the lachrymal sack and Aboulcasem's cup. (See Chapter on Wit and Judgment.)

(August 3d, 1796.) C—— (eleven years old), after she had heard a description of a fire-engine, said, "I want to read the description of the fire-engine over again; for while my father was describing one particular part, I recollected something that I had heard before, and *that* took my attention quite away from what he was saying. Very often when I am listening, something that is said puts me in mind of something, and then I go on thinking of *that*, and I cannot hear what is said any longer."

Preceptors should listen to the observations that their pupils make upon their minds; this remark of C—— suggested to us some ideas that have been detailed in the "Chapter on Attention."

(August 1st, 1796.) S——, who had been translating some of Ovid's Metamorphoses to his father, exclaimed, "I hate those ancient gods and goddesses, they are so wicked! I wish I was Perseus, and had his shield, I would fly up to heaven and turn Jupiter, and Apollo, and Venus, into stone; then they would be too heavy to stay in heaven, and they would tumble down to earth; and then they would be stone statues, and we should have much finer statues of Apollo and Venus than they have now at Rome."

(September 10th, 1796.) S—— (within a month of ten years old) read to his sister M—— part of Dr. Darwin's chapter upon instinct; that part in which there is an account of young birds that learn to sing from the birds which take care of them, not from their parents. S—— immediately recollected a story which he had read last winter in the Annual Register. (Extract from Barring-

ton's Remarks upon Singing-birds.)—"There was a silly boy once (you know, sister, boys are silly sometimes), who used to play in a room where his mother had a nightingale in a cage, and the boy took out of the cage the nightingale's eggs, and put in some other bird's eggs (a swallow's, I think), and the nightingale hatched them; and when the swallows grew up they sang like nightingales." When S—— had done reading, he looked at the title of the book. He had often heard his father speak of Zoonomia, and he knew that Dr. Darwin was the author of it.

S——. "Oh ho! Zoonomia! Dr. Darwin wrote it; it is very entertaining: my father told me that when I read Zoonomia, I should know the reason why I stretch myself when I am tired. But, sister, there is one thing I read about the cuckoo that I did not quite understand. May I look at it again?" He read the following passage:—

"For a hen teaches this language with ease to the ducklings she has hatched from supposititious eggs, and educates as her own offspring; and the wagtails or hedge-sparrows learn it from the young cuckoo, their foster-nursling, and supply him with his food long after he can fly about, whenever they hear his cuckooing, which Linnæus tells us is his call of hunger."

S—— asked what Dr. Darwin meant by "learns *it*."

M——. "Learns a language."

S——. "What does foster-nursling mean?"

M——. "It here means a bird that is nursed along with another, but that has not the same parents."

S——. "Then, does it not mean that the sparrows learn from their foster-sister, the cuckoo, to say Cuckoo?"

M——. "No; the sparrow don't learn to say cuckoo, but they learn to understand what he means by that cry; that he is hungry."

S——. "Well, but then I think this is a proof against what Dr. Darwin means about instinct."

M——. "Why? How?"

S——. "Because the young cuckoo does say cuckoo, without being taught; it does not learn from the sparrows. How comes it to say cuckoo at all, if it is not by instinct? It does not see its own father and mother."

We give this conversation as a proof that our young

pupils were accustomed to *think* about every thing that they read.

(Nov. 8th, 1796.) The following are the "*Curiosities of Literature*" which were promised to the reader in the chapter upon Grammar and Classical Literature.

Translation from Ovid. The Cave of Sleep, *first* edition.

> "No watchful cock Aurora's beams invite;
> No dog nor goose, the guardians of the night."

Dog and *goose* were objected to, and the young author changed them into dogs and geese.

> "No herds, nor flocks, nor human voice is heard;
> But nigh the cave a *rustling* spring appear'd."

When this line was read to S——, he changed the epithet *rustling* into *gliding*.

> "And with soft murmurs faithless sleep invites,
> And there the flying past again delights;
> And near the door the noxious poppy grows,
> And spreads his sleepy milk at daylight's close."

S—— was now requested to translate the beginning of the sentence, and he produced these lines:—

> "Far from the sun there lies a cave forlorn,
> Which Sol's bright beams *can't* enter eve nor morn."

Can't was objected to. Mr. —— asked S—— what was the literal English. S—— first said *not*, and then *nor;* and he corrected his line, and made it

> "Which Sol's bright beams *nor* visit eve nor morn.'

Afterward—

> "Far in a vale there lies a cave forlorn,
> Which Phœbus never enters eve nor morn."

After an interval of a few days, the lines were all read to the boy, to try whether he could farther correct them; he desired to have the two following lines left out:—

> "No herds, nor flocks, nor human voice is heard,
> But nigh the cave a gliding spring appear'd."

And in the place of them he wrote,

> "No flocks nor herds disturb the silent plains:
> Within the sacred walls mute quiet reigns."

Instead of the two following:—

"And with soft murmurs faithless sleep invites,
And there the flying past again delights."

S—— desired his *secretary* to write,

"But murmuring Lethe soothing sleep invites,
In dreams again the flying past delights."

Instead of,

"And near the doors the noxious poppy grows,
And spreads his sleepy milk at daylight's close,"

the following lines were written. S—— did not say *doors*, because he thought the cave had no doors; yet his Latin, he said, spoke of squeaking hinges.

"From milky flowers that near the cavern grow,
Night scatters the collected sleep below."

We shall not make any farther apology for inserting all these corrections, because we have already sufficiently explained our motives. (See Chapter on Grammar and Classical Literature.)

(February, 1797.) A little theatre was put up for the children, and they acted "Justice Poz."* When the scenes were pulled down afterward, S—— was extremely sorry to see the whole theatre vanish; he had succeeded as an actor, and he wished to have another play acted. His father did not wish that he should become ambitious of excelling in this way at ten years old, because it might turn his attention away from things of more consequence; and if he had been much applauded for this talent, he would, perhaps, be over-stimulated. (See Chapter on Vanity and Ambition.)

The way to turn this boy's mind away from its present pursuit, was to give him another object, not to blame or check him for the natural expression of his wishes. It is difficult to find objects for children who have not cultivated a taste for literature; but infinite variety can be found for those who have acquired this happy taste.

Soon after S—— had expressed his ardent wish to have another play performed, the trial of some poor man in the neighbourhood happened to be mentioned; and it was said that the criminal had the choice of either going to Botany Bay, or being hanged.

S—— asked how that could be. "I didn't think," said he, "that a man could have two punishments. Can the

* Parent's Assistant.

judge change the punishment? I thought it was fixed by the law."

Mr. —— told S—— that these were sensible questions; and as he saw that the boy's attention was fixed, he seized the opportunity to give some general idea upon the subject. He began with telling S—— the manner in which a suspected person is brought before a justice of the peace. A warrant and committal were described; then the manner of trying criminals; what is called the court, the jury, &c.; the crier of the court, and the forms of a trial; the reason why the prisoner, when he is asked how he will be tried, answers, "By God and my country:" this led to an account of the old absurd fire and water ordeals, and thence the advantages of a trial by jury became more apparent by comparison. Mr. —— told S—— why it is called *empannelling* a jury, and why the jury are called a *panel;* the manner in which the jury give their verdict; the duty of the judge, to sum up the evidence, to explain the law to the jury. "The judge is, by the humane laws of England, always supposed to be the protector of the accused; and now, S——, we are come round to your question; the judge cannot make the punishment more severe; but when the punishment is fine or imprisonment, the quantity or duration of the punishment is left to his judgment. The king may remit the punishment entirely; he may pardon the criminal; he may, if a man be sentenced to be hanged, give him his choice, whether he will be hanged or *transported*."—(The word was explained.)

"But," said S——, "since the judge cannot *change* the punishment, why may the king? I think it is very unjust that the king should have such a power, because if he changes the punishment for one thing, why mayn't he for another, and another, and so on?"

Mr. ——. "I am inclined to believe, my dear S——, that it is for the good of a state, that a king should have such a power; but I am not sure. If any individual should have this power, I think it is most safely trusted to a king; because, as he has no connexion with the individuals who are tried, as he does not live among them, he is not so liable as judges and jurymen might be to be prejudiced, to be influenced by personal revenge, friendship, or pity. When he pardons, he is supposed to pardon without any personal motives. But of all this,

S——, you will judge for yourself, when you study the law. I intend to take you with me to —— next assizes, to hear a trial."

S—— looked full as eager to hear a trial, as he had done, half an hour before, to act a play. We should mention that in the little play in which he had acted, he had played the part of a justice of the peace, and a sort of trial formed the business of the play; the ideas of trials and law, therefore, joined readily with his former train of thought. Much of the success of education depends upon the preceptor's seizing these slight connexions. It is scarcely possible to explain this fully in writing.

(February 25th, 1797.) S—— was reading in "Evenings at Home," the story of "A friend in need, is a friend indeed."

"Mr. G. Cornish, having raised a moderate fortune, and being now beyond the meridian of life, he felt a *strong desire* of returning to his native country."

S——. "How much better that is, than to say he felt an *irresistible desire*, or an *insupportable desire*, as people sometimes say in books."

Our pupils were always permitted to stop when they were reading loud, to make whatever remarks they pleased upon whatever books they read. They did not, by this method, get through so many books as other children of their age usually do; but their taste for reading seemed to increase rapidly. (See Books.)

(March 8th, 1797.) H—— (fourteen) told us that he remembered seeing, when he was five years old, some puppets packed up by a showman in a triangular box; "and for some time afterward," said H——, "when I saw my father's triangular hatbox, I expected puppets to come out of it. A few days ago, I met a man with a triangular box upon his head, and I thought that there were puppets in the box."

We have taken notice of this propensity in children, to believe that particular are general causes; and we have endeavoured to show how it affects the temper and the habits of reasoning. (See Temper, and Wit and Judgment.)

(March 27th, 1797.) Mr. —— showed little W—— (three years old) a watch, and asked him if he thought that it was alive.

W——. "Yes."

Mr. ——. "Do you think that the fire is alive?"

W——. "Yes."

Mr. —— (The child was standing at the tea-table.) "Do you think the urn is alive?"

W——. "No."

Mr. ——. "Do you think that book is alive?"

W——. "No."

Mr. ——. "The horses?"

W——. "Yes"

Mr. ——. "Do you think that the chaise is alive?"

W——. "Yes." Then, after looking in Mr. ——'s face, he changed his opinion, and said, *No.*

W—— did not seem to know what was meant by the word *alive.*

Mr. —— called H. (five years old), and asked her whether she thought that the watch was alive. She at first said, Yes; but, as soon as she had time to recollect herself, she said that the watch was not alive.

This question was asked, to try whether Reid was right in his conjecture as to the answers a child would give to such a question. (See Reid's Essays on the Intellectual Powers of Man.)

We frequently say that flowers, &c. are dead: we should explain to children that there are two kinds of life; or rather, that the word *life* is used to express two ideas; vegetable life and animal life.

(July, 1797.) Miss Louisa —— told us, that when a rosebud begins to wither, if you burn the end of the stalk, and plunge it redhot into water, the rose will be found revived the next day; and by a repetition of this burning, the lives of flowers may be fortunately prolonged many days. Miss Louisa —— had seen many surprising recoveries performed by this operation, and several of her friends had adopted the practice with uniform success.

We determined to repeat the experiment. Children should never take any thing upon trust which they can verify. Two roses, gathered at the same time, from the same tree, were put into separate glasses of water. The stalk of one of these roses was burnt, according to prescription; they were left a night in water, and the next day the rose that had been burnt, appeared in much better health than that which had not been burnt. The experiment was afterward several times repeated,

and should be tried by others until the fact be fully ascertained.

(July, 1797.) Little W—— (three years old) was shown Miss B——'s beautiful copy of the Aurora surgens of Guido. The car of Apollo is encircled by the dancing hours, so that its shape is not seen; part of one wheel only is visible between the robes of the dancing figures. We asked little W—— why that man (pointing to the figure of Apollo in his invisible car) looked so much higher up in the air than the other people?

W——. "Because he is in a carriage; he is sitting in a carriage."

We pointed to the imperfect wheel, and asked if he knew what that was? He immediately answered, "Yes, the wheel of the carriage." We wanted to see whether the imagination of a child of three years old, would supply the invisible parts of the *car;* and whether the wheel and horses, and man holding the reins, would suggest the idea of a phaeton. (See Chapter on Taste and Imagination.)

We shall not trespass upon the reader's patience with any more anecdotes from the nursery. We hope that candid and intelligent parents will pardon, if they have discovered any desire in us to *exhibit* our pupils. We may mistake our own motives, and we do not pretend to be perfectly impartial judges upon this occasion; but we hope that only such conversations or anecdotes have been produced, as may be of some use in practical education. From conversation, if properly managed, children may learn with ease, expedition, and delight, a variety of knowledge; and a skilful preceptor can apply in conversation all the principles that we have laboriously endeavoured to make intelligible.

THE END.

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